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TRIAL AND TESTING OF AN EXPERIMENTAL GUIDANCE CURRICULUM. FINAL REPORT.

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INNOVATIVE VOCATIONAL GUIDANCE CURRICULUM MATERIALS WERE DESIGNED TO INCREASE SELF-UNDERSTANDING AND MOTIVATION RELATIVE TO CAREER EXPLORATION AND PLANNING. THESE MATERIALS STEMMED ORIGINALLY FROM A SURVEY OF ATTITUDES AND PLANNING RELATIVE TO CAREER DEVELOPMENT IN THE PALO ALTO UNIFIED SCHOOL DISTRICT. THE RESEARCH DATA WAS USED AS CURRICULUM CONTENT, FOCUSING UPON THE SELF AS A CRUCIAL VARIABLE IN CAREER MOTIVATION. DETAILED BACKGROUND ON THE MATERIAL IS GIVEN IN SECTION I. SECTION II DESCRIBES THE SETTING, DESIGN, METHODS EMPLOYED FOR TEACHER ORIENTATION, INSTRUMENTS, SCORING PROCEDURES, RATER RELIABILITY FOR HANDLING SUBJECTIVE DATA, TESTING PROCEDURES AND PROBLEMS, AND METHOD OF ANALYSIS. THOUGH SOME STATISTICALLY SIGNIFICANT RESULTS EMERGED AS EVIDENCE THAT THE CURRICULUM EXPERIENCE DID HAVE SOME DESIRED EFFECTS, CERTAIN LIMITATIONS LEAD TO THE CONCLUSION THAT, IN EFFECT, THE MATERIALS IN THEIR PRESENT FORM HAVE NOT BEEN ADEQUATELY TESTED. OTHER FINDINGS, SUCH AS SEX DIFFERENCES AND SOME GRADE INTERACTIONS, TENDED TO SUGGEST DIRECTIONS FOR CURRICULUM INNOVATION, EDUCATIONAL PRACTICES, AND FURTHER RESEARCH. THESE ARE DISCUSSED IN DETAIL IN CONNECTION WITH EACH SIGNIFICANT VARIABLE IN SECTION III. SECTION IV INCLUDES A BRIEF OVERVIEW OF THE STATISTICAL RESULTS AND THEIR IMPLICATIONS FOR EDUCATIONAL PRACTICES AND CURRICULUM DEVELOPMENT, SPECIFIC CONSIDERATION OF THE INSTRUMENTS USED, AND GENERAL RESEARCH RECOMMENDATIONS. (AUTHOR/CG)

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Trial and Testing of an Experimental Guidance Curriculum

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SUMMARY

Innovative vocational guidance curriculum materials were designed to increase self-understanding and motivation relative to career exploration and planning. These materials stemmed originally from a survey of attitudes and planning relative to career development conducted in 1966 in the Palo Alto Unified School District, Palo Alto, California. They utilize these research data as curriculum content and focus upon the self as a crucial variable in career motivation. Lessons are structured in terms of affective objectives. They also attempt to relate both cognitive processes and the construct of developmental tasks to these objectives; they attempt to direct attention to the total individual, which is the reality with which teachers deal in classrooms. Curriculum experiences stress communication skills and provide opportunity for reading and interpreting simple graphs showing how 6th, 8th, 10th, and 12th graders responded to questionnaire items used in the survey. These same items also are interspersed throughout the curriculum sequence, thereby allowing youngsters to project their own responses against those of boys and girls at their own and other ages, hopefully to bring about broadened perspective on self. This also provides data for ongoing school district research. Detailed background on the materials is given in Section I.

The setting, design, methods employed for teacher orientation, instruments, scoring procedures, rater reliability for handling subjective data, testing procedures and problems, and method of analysis are described in detail in Section II. Briefly, the vocational guidance materials were put to quasi-experimental test to determine the extent to which complex attitudinal objectives of increasing self-knowledge and impetus to explore career interests might be brought about in a short period of time. The materials, of course, can be used with senior high school students, but they were intended to fill an apparent gap in guidance programs for earlier formative periods of youngsters' lives. They were not designed for low academic students, but it was felt they could be adapted up or down for varying ability levels. Subjects used in this study were 185 low academic ("vocational") 7th, 8th, and 9th grade junior high school students. All available C-lane English students (115 boys and 70 girls) in two junior high schools of the Palo Alto Unified School District comprised the sample. Classroom units at one school were assigned by chance to experimental conditions for the eight-week treatment period and those at the other to control conditions; students were the basic unit of analysis. Pre- and posttest measures included the semantic differential (using evaluative and dynamism scores on concepts of GETTING AN EDUCATION, MYSELF, MY FUTURE, THE KIND OF PERSON I'D LIKE TO BE, and MY FUTURE WORK), essays on career interests and plans (content analyzed for total number of verbalized self-perceptions and rated for

specificity of goals and plans), and written interviews. These included a combination of multiple-choice items about likelihood of goal achievement, effort students intended to put forth, alternative goals and plans, and listing of factors they perceived might influence goal achievement. Students reported on posttest behavioral checklists things they actually had done on their own during the treatment period to indicate more active involvement in career development.

Unknown to the investigator and guidance personnel with whom the project was coordinated, achieving C-lane students in the experimental 8th and 9th grades had been removed for special work with a counselor prior to the start of the treatment period. This resulted in experimental and control groups at these two levels not being comparable in whatever emotional-attitudinal factors contribute to classroom achievement and behavior. This, in turn, led to testing conditions which were not comparable at these two grade levels. There also was far less use of the materials in classrooms than had been intended. However, some statistically significant results emerged as evidence that the curriculum experiences did have some desired effects. Experimental seventh graders indicated more positive evaluations of self on posttest than did their controls. The curriculum experiences appeared, also, to have had some sustaining influence upon the number of self-perceptions the students verbalized in essays and on the specificity of their second-choice career plans. Experimental eighth graders reported having sought more written occupational information on their own from the school and public libraries than had their controls. In spite of these findings, however, the previously described limitations lead to the conclusion that, in effect, the materials in their present form have not been adequately tested.

There were other findings of interest, e.g., sex differences and some grade interactions, as well. All of these data tended to suggest directions for curriculum innovation, educational practices, and further research. These are discussed in detail in connection with each significant variable.

Conclusions and recommendations are given in Section IV. These include a brief overview of the statistical results and implications for educational practices and curriculum development, specific consideration of the instruments used in this study, e.g., the system of content analysis of students' essays developed in this study. General research recommendations follow. Teacher response to the trial of the materials is described. Both negative and positive responses to participation in the study and the applicability of the materials are given.

Based on a combination of statistical findings and their implications, teacher evaluations, casual observation of student and teacher attitudes and behaviors during the treatment period, and assumptions underlying the development of the materials, specific recommendations are given for practical application and further development and testing of the materials. In general, it appears they hold potential for (1) a wedding of "vocational" and general guidance, (2) an integration of guidance with academic curricula, (3) increasing involvement of counselors in the educative process, and (4) instigation of educational change.

The full extent to which the curriculum materials, either in their present form or as they are refined and expanded, can bring about increased self-understanding and career motivation in youngsters really is yet to be shown. But the trial and testing of these materials described in this report provide a valuable portrayal of problems encountered and insights gained from attempting to confront a crucial educational and cultural problem in the school setting, where dynamic interactions are neither easy to discern nor to control. Hopefully, it will provide some guidelines for others who will seek achievement of difficult objectives involved in helping young people explore themselves and the world and commit themselves to appropriate career goals, those conducive to productive living and fuller utilization of human potential.

I. Introduction

The problem. The purpose of the study was to put to experimental test innovative vocational guidance curriculum materials which were designed to increase self-understanding and motivation in the realm of career planning, and to determine the extent to which complex behaviors of this type can be achieved in classrooms of junior high school students within a specified period of time by the approach described.

Development and description of the curriculum. The materials which were tested emerged from a study of what might constitute appropriate vocational guidance curriculum for junior high school youngsters (Sherman, 1966). Review of the literature had led to the conclusion that there was a need for innovation to fill some existing gaps in the crucial realm of career motivation. These areas included a need to broaden the scope of vocational education beyond that of providing information and skill proficiency in selected occupations in the direction of (1) greater concern with the process of career exploration at an earlier age, (2) concern with the total individual (e.g., attitudes, feelings, self-concept, values), and (3) a conception of guidance not as something externally applied but as a structuring of situations conducive to internal reorganization or personality integration. The tentative conclusion was reached that if these gaps could be filled, the result might be increased self-understanding and self-direction.

The innovative curriculum materials developed with the hope of filling these gaps (1) are based upon the theoretical construct of developmental tasks, (2) attempt to apply the taxonomy of affective objectives and relate cognitive objectives to them, (3) focus primarily upon the self as a crucial variable in developing a career orientation, and (4) utilize research data as content.

Activities and assignments were included to further achievement of developmental tasks, such as opportunity for boys and girls to relate to social groups and youngsters of the same and opposite sex, to achieve independence, or develop an objective, scientific approach to their own value system, etc. Planning of this type was to meet multiple needs of maturing youngsters and bring concern with the whole person into focus.

Since attitudinal change was desired, the taxonomy of affective objectives (Krathwohl, et al., 1964) was used as another basis for planning. Behavioral objectives were developed according to steps outlined for what was described as the process of internalization.

These move initially from receiving or attending through responding and valuing toward higher levels of organization and characterization by a value or value complex. Since considerable maturity is needed for the highest categories of internalization and youngsters appear to have limited background for vocational planning at this age, most of the objectives were based upon lower levels of the taxonomy. Rudimentary evaluative devices were included to correspond with each of these objectives. In order to point out the relationship between cognitive and affective objectives, intellectual processes demanded by each lesson were listed. For purposes of inservice education, objectives for each lesson were also translated into what each student might say to himself if he were moving toward achievement of stated objectives.

The research data used as content were derived from a survey of attitudes of 6th, 8th, 10th, and 12th grade students and their parents toward career and educational planning (Norris and Sherman, 1966). A part of the curriculum includes completing the same items from the questionnaire used in this survey. Findings were re-organized according to the following topical structure:

Youngsters' Perspective of Purposes of Education and Key Problems Facing Them (Career and educational planning located in a broad context)
Status of Career Planning (Status of individual students' planning, areas of interest, degree of specificity or vagueness in planning, and careers considered in the past)
Developmental Perspective on Self (Individual variation due to heredity, influencing people and events, early interests)
Self-Concept (Important dimensions of self, influencing environmental-situational factors, and self-perceptions)
Occupations (Relationship of personality characteristics to occupations, occupational stereotypes, requirements and opportunities related to current career interests)
Planning for Career Exploration (Locus of responsibility for planning and decision-making, clarification of values and goals in decision-making, clarification of plans)

Specifically, tables of research data pertaining to the above topics were converted to elementary grade level graphs so the actual findings could be fed back to youngsters in an objective manner, as a framework against which they might project their own responses. The underlying assumption was that such a process would tend to broaden students' perspective of themselves, e.g., how they came to be what they are, what environmental expectancies they confront relative to educational and vocational planning, what values and goals they seek, etc., and make them more responsive to the need to explore vocational possibilities. Analysis of graphs offer quantitative experience and lessons are geared to utilize verbal communication skills.

All of the above considerations were organized into the following format:

OBJECTIVES	MEANS OF ELICITING RESPONSE	EVALUATIVE DEVICES
Affective classification Specific behavioral responses Possible student attitudinal response Cognitive processes demanded	Methodological considerations (guiding principles, tactical moves, etc.) Specific practices, plans, or materials Relationship to developmental tasks or growth needs of learner	Approach which seeks consistency with objective and provides a means of continuous diagnosis and record-keeping

The complete curriculum guide is available through ERIC (Sherman, 1966). Overview and illustrative materials appear in APPENDIX B and APPENDIX C of this report.

II. Method

Setting. Preliminary tryout of the materials, to which there was enthusiastic response, was with junior and senior high school classes of the Palo Alto Unified School District, Palo Alto, California. The research data which comprise much of the content were gathered in this district. The decision-making guidance program of the district, designed to teach students to consider alternatives, outcomes, and probabilities in formulating their own educational and vocational plans, seemed particularly suited to a curriculum which involves providing students with attitudinal-developmental research data against which they might gain perspective on self. Guidance personnel in this district, aware through their own ongoing research of the role of personal values in decision-making, were interested in application of the materials and felt school personnel were ready for such a curriculum. Thus it was that the predominantly middle or upper-middle class, largely Caucasian, professionally oriented community of Palo Alto was selected for experimental tryout of the materials.

Subjects. Funding required application of the curriculum materials with "vocational" students, those who tend not to fit the academic mainstream of college bound youngsters. Although the materials were not developed especially for such students. one basic premise, supported by preliminary application, was that they could be adapted up or down according to varying ability levels. Probability data from the Palo Alto guidance department's follow-up research indicated that the greatest proportion of students in this district who go directly to work or drop out of junior college are those from C-lane (lower academic level) classes. It was the impression of guidance personnel that teachers of these students sometimes find it difficult to find appropriate curriculum for them. Since these materials emphasize oral and written communication skills, it was felt that C-lane junior high school English teachers would welcome the materials and that opportunity would be provided to attempt bridging the traditional gap between academic and vocational curriculum. Subjects selected were 185 C-lane junior high school English students.

Using verbal-quantitative scores alone to describe these students probably would be inadequate; many factors contribute to lack of academic achievement. C-lane students in this district are at the low end of the academic-achievement spectrum. They can be described relative to overall district research data relevant to "vocational" students. Seventy-five per cent of the students in the district are above the 50th percentile in verbal-quantitative ability (SCAT) and twenty-five per cent are above the 75th percentile. About two per cent of the students go into technical training schools and approximately sixteen per cent go directly into work. About forty per cent attend junior colleges, which offer a wide range of technical-vocational training, but many of these students either fail or drop out of these programs.

It was discovered after the treatment period commenced that all of the achieving C-lane students had been systematically screened out of the experimental eighth and ninth grades for special work with a counselor. Neither district guidance personnel nor the school counselors with whom the project had been coordinated had been aware of this action. These two groups were comprised, therefore, largely of students of varying abilities, some with severe learning handicaps, and many who manifested distinct emotional-attitudinal-behavior problems. This resulted in two extremely volatile groups in the experimental school.

Research design. Although it originally had been planned to assign experimental and control conditions to classroom units randomly, funding limitations resulted in use of all available 7th, 8th, and 9th grade C-lane English classes in two junior high schools. Classroom units at one school were assigned by chance to experimental conditions and those at the other to control conditions, thereby resulting in a quasi-experimental study. Composition of groups was as follows:

	Experimental		Control	
Grades	Boys	Girls	Boys	Girls
7	34	15	20	18
8	13	9	22	17
9	9	4	17	7
Totals	56	28	59	42

Treatment period was approximately eight weeks. Since this was highly compressed, key lessons in the curriculum sequence were outlined. These appear in the seminar guide sheets which appear in APPENDIX B, from which teachers selected lessons they felt were possible to complete during the approximate time period scheduled for that section. This varied considerably according to teacher interest and implementation, student ability and behavior, and pressures and expectancies relative to the regular English curriculum with which the materials were to be integrated.

Experimental teachers. The focus of this project was on bringing about attitudinal change in students, not to observe the teachers through which the curriculum materials were mediated. However, in order to provide some understanding of teachers who were involved, they were asked to provide self-descriptions suggestive of their own teaching styles and personal characteristics and to respond to evaluative checklists pertaining to their attitude toward and actual use of the materials during the treatment period. Both of these appear in APPENDIX A.

Originally there were three men and one woman teaching experimental classrooms. The eighth grade teacher withdrew from the study after approximately two-three weeks, however, and a woman counselor contined to use the materials with his students on a part-time basis. This resulted in two men and two women as experimental teachers for most of the treatment period. There also were equal numbers of men and women teachers at the control school.

Teacher orientation. Preliminary coordination with schools and teachers was through central guidance staff and head counselors of the two junior high schools. The initial orientation meeting for experimental teachers was held 6 June 1967, at which time the following items were covered: (1) background regarding development of curriculum materials, (2) objectives of the study, (3) organization of materials, (4) content to be covered, (5) frequency of teacher demonstration seminars, (6) pretesting, and (7) relationship of the guidance materials to academic content. Curriculum manuals were examined but not given to teachers for study during the summer, since some evaluation of the materials as they stood was desired and not all teachers were present at this meeting. One of the four teachers to whom the C-lane English classes were assigned was on sabbatical leave and one had not yet been hired.

Demonstration was the major means selected for teacher orientation to the materials. The requirement to use C-lane students, all of whom were directly involved in the study, limited teacher time, and difficulty of scheduling demonstrations led to the decision to use videotaped demonstrations. During the summer the principal investigator, in cooperation with guidance, video, and summer session personnel, videotaped one key lesson from each of the six sections of the curriculum materials. Participating students were from review mathematics, English, and social studies skills classes. Guides for these demonstration lessons appear in APPENDIX C and provide relatively detailed and representative examples of the curriculum experiences.

Just prior to the start of school the first teacher seminar was held. Matters discussed at the earlier meeting were reviewed, manuals and materials distributed, and the videotaped lesson for Section I was viewed and discussed. A similar approach was tried at subsequent meetings, but a transition from training session to relatively free discussion occurred, mainly in response to teachers' apparent need or desire to talk. Seminars were held in the afternoon following a full day of teaching, which undoubtedly influenced interaction patterns in these sessions. Videotapes were omitted from the last two meetings in response to what seemed to be desire to evaluate the materials, express ideas about their improvement, or air problems.

Teachers were asked to give major emphasis to the following in their application of the materials:

(1) Encourage students to begin thinking about complexities involved in the critical problem of developing career interests and skills.

(2) Provide them opportunity to apply their communication skills to a critical life problem.

(3) Encourage an objective appraisal of self by having students compare their own attitudes and responses to questionnaire items with those of other students at various age levels (research data graphs).

(4) Provide first-hand experience with an open-ended scientific approach applied to a critical social problem in the hope that this will carry over into their later career decision-making.

(5) Place primary focus upon bringing about attitudinal change (working toward behavioral goals ranging from inital awareness to increasing attention, satisfaction in response, emotional investment, and valuing). Use the blue teacher evaluative sheets to gather some on-going evidence of the extent to which attitudinal change is occurring.

(6) Require students to use processes of thought (analyzing, interpreting, formulating hypotheses, drawing conclusions, reflecting, evaluating, etc.) which may enhance their self-concepts as "intellectual" beings and provide them the cognitive skills they will need for adequate decision-making.

(7) Provide opportunity for students to express ideas and feelings and relate to their peers within the classroom setting (in pairs, small, and large groups), thereby encouraging social development along with intellectual development and recognizing the important influence of peers in the development of youngsters at junior high school level.

Instruments. Copies of the five instruments used in this study appear in APPENDIX D. Descriptions and explanations of most of the scoring prcedures follow.

The semantic differential is designed specifically to measure the connotive meaning of selected concepts--how people feel about certain concepts--believed essential to the learning of attitudes (Kerlinger, 1965). The five concepts used were GETTING AN EDUCATION, MYSELF, MY FUTURE, THE KIND OF PERSON I'D LIKE TO BE, and MY FUTURE WORK. Students were asked to rate these concepts against 17 bipolar adjective pairs on a 7-point scale ranging from most positive (1 point) to most negative (7 points). Six of the seventeen adjective pairs were selected on the basis of previous factor analysis (Norris and Sherman, 1966). Adjective pairs strong-weak, fast-slow, and active-passive constituted a Dynamism factor and adjective pairs unpleasant-pleasant, bad-good, worthless-valuable constituted an Evaluative factor. The other eleven adjective pairs in which the two factor adjectives were embedded were selected because they seemed related to risk-taking and independence, characteristics believed associated with decision-making and creativity. These additional adjective pairs, however, were not used in this study.

Dynamism scores and Evaluative scores for each concept were found by adding points assigned by students to the three adjective pairs representing each of these factors. Discrepancy scores on concepts MYSELF and THE KIND OF PERSON I'D LIKE TO BE were the differences between the scores on these two concepts for both the evaluative and dynamism factors. Dynamism scores on the concepts GETTING AN EDUCATION, MY FUTURE, and MY FUTURE WORK were used as evidence of motivation toward career and education. Evaluative scores on concepts MYSELF and THE KIND OF PERSON I'D LIKE TO BE were used as an indication of positive attitude toward self; agreement between the Evaluative scores on these two self-concepts (discrepancy score = 0) was used as evidence of self-acceptance.

An essay assignment was designed to allow students maximum latitude in describing themselves and their career interests. The title was "My Future Career: Interests, Personal Characteristics, Past Influences, Major Goal and Plans." Students were asked to respond in writing to an outline guide of six questions concerning their career goals and plans for achieving these goals, their personal characteristics, factors influencing their development and career interests, and the appropriateness of their goals and plans for them.

Content analysis, a method of studying and analyzing subjective data in a systematic, objective, and quantitative manner (Kerlinger, 1965), was used to measure student responses in these essays. Two distinct procedures for analyzing the subjective verbal data were developed. Two 5-point specificity scales were established to measure the degree of specificity of a student's first choice career goal or interest and the degree of specificity of plans he could list for achieving this major career interest. Rating categories were derived inductively from actual essay protocols, then applied to other sets of essays for further refinement. Detailed procedures for scoring specificity-vagueness of career goals and plans appear in APPENDIX E. Higher scores were given for greater specificity, which was interpreted as evidence of career motivation.

In order to assess the number and kinds of statements students were willing or able to make about themselves, twenty-four categories were established from essay protocols via the same inductive process. These seemed to fall under three major subdivisions: Personal Characteristics and Resources, Past Influences on Development, and Opportunities and Resources for Future Develpment. The broad headings were related to the six questions used as an outline guide in the essay assignment. Sub-category labels emerged from analysis of actual statements students made about themselves. These categories then were deductively applied in the scoring of other preliminary essays to see if they were applicable to new data. Subsequent refinements and adjustments resulted in the detailed scoring system for quantifying verbalized self-perceptions which appears in APPENDIX F. This was the system used in this study and upon which rater reliability tables were based. Total number of verbalized self-perceptions were used as evidence of self-understanding.

In a written interview, My Plans, students were asked to rate the likelihood of achieving their first choice career interest or goal and the amount of effort they intended to put forth to accomplish this. They also were asked to list factors they believed might influence whether they might or might not become what they had described as their major or first career interest and to give a second choice or alternative career goal, if they had one, along with plans for its realization. Students were given a score of 1 to 5 for each of the multiple choice responses. The higher the number the greater the likelihood of goal achievement and effort to be expended. One point was given for each factor which they believed might influence pursuit of their first career choice. Second choice career goal and plans were scored according to the same 5-point specificity scales previously described.

Two measures were used on posttest only. One was a behavioral checklist on which students were asked to check the number of times they had acted in the direction of career exploration during the treatment period. These items involved investigating written occupational information, talking to people, examining equipment and actual working conditions, and intention to seek work experience for purposes of career exploration. Scores ranged from 1 to 5 (highest). This instrument provided some behavioral evidence of career motivation. Another measure of overt behavior was a counselor contact record. This consisted of a list of reasons for which students might seek counselor aid. Counselors were asked to check on these individual record sheets the number and purposes of all contacts initiated by students. It was intended to use the total number of contacts made by students as evidence of educational and career motivation, but data available during the short treatment period did not warrant its use in the analysis.

Scoring time and rater reliability. Posttest scoring took less time than pretest scoring due to greater familiarity with procedures. Scoring times for one individual on each instrument, based on posttesting, follow:

Semantic differential:

Approximately 4 minutes to score all 5 concepts and enter scores on data sheets.

Essay:

Specificity of goals, spproximately 1 minute.

Specificity of plans, approximately 1 minute.

Total number of verbalized self-perceptions ranged from 2 - 10 minutes, depending upon such factors as length of essay, sentence complexity, use of tense, and legibility.

My Plans:

Multiple choice items 2 and 3 (likelihood of achievement and intended effort), entered directly on data sheet - approximately 30 seconds for both items.

Item 4 (influencing factors) - ranged from 15 seconds to 2 minutes, depending upon number, legibility, completeness, appropriateness of response, etc.

Behavioral checklist:

Approximately 1-1/2 minutes for all 11 multiple choice items, entered directly on data sheets.

Spot checking for accuracy was randomly done for the semantic differential, multiple choice items on My Plans, and the behavioral checklist.

Rater reliability for specificity of goals and plans and item 4 on My Plans (factors perceived as influencing career achievement) were independently scored. Three entire classes were randomly selected, one from each of the three grade levels, and rescored for comparison. Scoring for reliability required approximately the same length of time as original scoring.

Essay scoring was done in order of grade level (7-9). Twelve essays (six boys and six girls) were selected at random from one class at each of the three grade levels. A seventh grade from the experimental school was done early in the scoring, an eighth grade control group midway in the scoring, and a ninth grade control group at the end. The second rater had no knowledge of grade, sex, or school designation. Slightly more time (approximately 2 - 12 minutes) was required by the second rater because of less familiarity with the scoring system.

Further procedural explanations and all rater reliability tables for separate scorings appear in APPENDIX F. A summary of agreement between raters for all scores involving subjective judgment follows.

TABLE NO. 1

SUMMARY OF AGREEMENT BETWEEN RATERS

	Per cent Agreement	
	Pretest	Posttest
Essay: My Career Interests		
Specificity Ratings of First Choice Career Goals	94	95
Content Analysis of Verbalized Self-Perceptions	78	81
Specificity Ratings of Plans for Achieving First Choice Career Goal	87	93
Written Interview: My Plans		
Factors Students Perceive as Influencing Achievement of First Choice Career Goal	93	95
Specificity Ratings of Second Choice Career Goals	90	96
Specificity Ratings of Plans for Achieving Second Choice Career Goal	85	92

Testing procedures and problems. Administration time for all instruments required about one-and-a-half 50-minute class periods (approximately 75 minutes) for the majority of students. All but make-up tests were administered to intact groups within classroom settings. Pickup testing of absentees was done either individually or in groups of 2 to 5 students, usually in a counseling room. The principal investigator did all testing in order to maintain consistency of presentation as far as possible. Differences in classroom environments, the nature of the groups, and the two school environments, however, resulted in the following pronounced differences in testing conditions:

(1) Control school. Classroom behavior (in the traditional sense of quiet atmosphere, acquiescence to teacher requests, attentiveness to test requirements, and courtesy) was most satisfactory in the control school on the pretests. The same

conditions prevailed in posttesting except that in one of the classrooms (8th grade) a few boys evidenced some emotional disturbance which resulted in behavior problems during this one session.

(2) *Experimental school*. In contrast, both pre- and posttesting in the experimental school was done under adverse circumstances, with the exception of one 7th grade classroom on posttesting, where the teacher apparently had been able to establish strict patterns of control. Although many factors may have contributed to the excessive talking, short attention span, and behaviors many teachers probably would judge as quite negative in these classrooms, the volatile nature of the groups themselves probably was the major cause. They simply were extremely difficult groups to control.

The greatest positive responsiveness to the testing seemed to occur in the small group make-up test situations, where students appeared to feel there was genuine interest in them as individuals. Rather than assuming an authority role in the classroom, the tester may have become to students more of a counselor or an interested adult. All absentees were tested in counseling rooms.

Pretests were explained to students as an outgrowth of interest on the part of guidance personnel in junior high school students' career interests and the extent of their career planning and that a possible consequence of the study might be improvement of curriculum practices based upon where students appear to be in this important area of personal development. Posttesting was presented in the same way, except that the interest was in determining how students were thinking and feeling about these things at a different point in time. Posttest essays were presented, in addition, as a means for students to communicate themselves as individuals to their counselors, who probably would receive copies of the essays at a later date.

Method of analysis. An analysis of covariance design, with *all* (20) pretest variables as covariates, was employed in an effort to remove possible pre-experimental group differences. The model for the sex X grade X treatment analysis was

$$Y_{ijkl}=\mu+\alpha_i+\beta_j+\psi_k+\alpha\beta_{ij}+\alpha\psi_{ik}+\beta\psi_{jk}+\alpha\beta\psi_{ijk}+\gamma_1X_{1ijk}+\gamma_2X_{2ijk}+\dots+\gamma_{20}X_{20ijk}+\varepsilon_{ijkl}$$

and the data were analyzed using the BIMDO5V General Linear Hypothesis program (Dixon, 1966).

III. Results

Procedures for describing findings. It must be emphasized at the outset of this analysis that of the four experimental teachers using the curriculum materials two reported they had used them only 25% of the class time during the treatment period, one reported using them 50% of the time, and the other 75% (see Teacher Evaluation, APPENDIX A). For all practical purposes only a very limited application of the materials was made. Some of the main effects and interactions reported do not show a clear-cut relationship to the over-all intent of the study, which was to determine the effect of this vocational guidance curriculum upon students' self-understanding and career motivation in the experimental school, but the findings are of interest.

Only significant *F*'s are reported (.05* and .01**). Only means relevant to the significant source of variance are given in tables; means are unadjusted for covariates. Research findings frequently open more doors than they close. Initial minimal descriptions of findings are followed by discussion which includes both curriculum implications and recommendations for further research. A print-out of all raw data is on file at the institution from which the report originated.

Talking with school personnel about work. The sex by grade interaction on the number of times students reported having talked about occupations on their own during the treatment period with school personnel, i.e., teachers, counselors, and principals, indicates no positive effect of the curriculum. Boys at the ninth grade talked most with school personnel, but apparently none of the ninth grade girls did this (since a score of 1 meant none). It must be kept in mind throughout the analysis, however, that there were fewer girls in both schools at all levels, and relative to this particular variable, the smallest number of girls was at the ninth grade level. There was a slight tendency for boys to discuss work more as they became older.

TABLE NO. 2

RESULTS FOR BEHAVIORAL CHECKLIST (Item 2b)
TALKED WITH TEACHERS, COUNSELORS, PRINCIPAL ABOUT WORK
(Posttest only)

ANALYSIS OF COVARIANCE

	SS	df	MS	F
Sex by Grade	161.04	2	80.52	3.36*
Error	154.26	153	1.01	

Relevant Posttest Means[1]
(Combined Across Schools)

Grade	N	Boys	N	Girls	Diff
7	54	1.54	33	1.42	.12
8	35	1.88	26	1.69	.18
9	26	2.00	11	1.00	1.00

[1] Scores ranged from 1 (low) to 5 (high).

Judging by size of the means there was very little interaction with school personnel about the occupational world in either of these junior high schools. This may reflect a traditional subject-matter orientation among teachers. It suggests an area in which both counselors and classroom teachers might profitably exert some effort, perhaps jointly and individually. It might be especially valuable for girls. Teachers in various fields could build into even highly specialized content the opportunities and possibilities for career development within that subject matter area. If something is important enough to be taught, surely it is relevant to real life.

Modification of existing curriculum units to include focus upon and vivid dramatization of careers related to a wide variety of subject matter fields should help to bridge a wide and needless gap between academic and vocational worlds and serve to integrate guidance and curriculum. In a sense, this could be one important approach to humanizing the curriculum. By helping youngsters explore the feelings, values, satisfactions, joys, and problems associated with a wide range of occupations and to conjecture about future possibilities in a variety of arenas for productivity, teachers might lead students toward greater self-actualization and commitment to life. Instead of limiting vocational guidance to occupational information about such things as job entry, salary, and outlook, it seems more important to take a vital people-oriented approach based on creative expression, non-verbal experience, direct encounters with people engaged in work, and multimedia portrayals of real human experience. This also could make subject matter come alive for students.

Probably too few teachers become strong identification models for youngsters. This might not be the case if more teachers were enthusiastically concerned with building the culture as well as transmitting it, with helping youngsters expand the meanings life holds for them as well as to teach the facts and skills they may need. High quality interactions between students and school personnel about how young people might move toward expansion and implementation of their self-concepts in the world of work may be something that could be increased with relative ease if creative minds were set to this task. Drewes (1966) offers a good example of what might be done.

Valuable development and research contributions could be made if sustained and artful effort were devoted to creating such kinds of interactions within the school setting and to measuring their impact upon attitudes and overt behavior of boys and girls at various ages and with different characteristics.

Talking with parents and family about work. There was a significant effect of school on the number of times students talked with their parents or family about work during the treatment period. The combined means indicate that the control group engaged in such conversations more than the experimental students did. The curriculum appears not to have influenced this particular behavior.

A comparison of means on TABLES 2 and 3 indicates that students in this sample at all grade levels talked more with their parents and family about work than with school personnel and that this was particularly the case in the control school.

TABLE NO. 3

RESULTS OF BEHAVIORAL CHECKLIST (Item 2a)
TALKED WITH PARENTS OR FAMILY ABOUT WORK
(Posttest only)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
School	375.48	1	375.48	5.60*
Error	362.22	153	2.37	

Relevant Posttest Means[1]
(Combined Across Sex and Grade)

	N	Mean
Experimental School	84	2.93
Control School	101	3.29

[1] Scores ranged from 1 (low) to 5 (high)

This is consistent with the description of testing conditions in the two schools. Students in control classrooms seemed quite adult-oriented, well-mannered, and conforming, much as one might expect in a community such as Palo Alto. On the whole there is considerable agreement in attitudes toward educational and career planning between parents and children in this community (Norris and Sherman, 1966). Students in the experimental group, on the other hand, appeared to be predominantly peer-oriented and resistant to adults in the school setting, almost as though they were striving to be independent of adult expectancies. This might be especially peculiar to these non-achieving eighth and ninth grade groups, since the emotional-behavioral problems of many of them conceivably could be linked with histories of parent-child conflicts later augmented by conflict with adults in the schools who uphold values and exert pressures much like those of parents.

If independence and resistance to adults are important covert variables operating with these particular C-lane students, giving them as much independence and responsibility as possible in organizing and planning a vocational curriculum based on their own personal interests might be an effective one for them. They might be highly original in their approach and perhaps quite concrete. One facet of the curriculum materials that was used little, if at all, during this testing period is that of engaging students in actual data gathering by questionnaire and comparing their own findings with the research data curriculum content. For students with whom there is close parental communication it might be advantageous to expand parent education programs concerning career development. It appears that for most of these C-lane junior high school students a fairly solid base for interaction with parents does exist. Is it utilized to the extent it might be?

Comparing the amount of parent-child communication about career exploration that exists with students of different personal characteristics, ages, socioeconomic backgrounds, and varied career interests might suggest cues for differential and perhaps complementary approaches to both parent-school cooperation and curriculum planning.

Attitude toward self. The significant interaction of grade by school on positive evaluation of self as measured by response to the concept MYSELF on the semantic differential is somewhat complicated. An examination of pre- and posttest means shows that the curriculum may have had a positive effect at seventh grade level, since control students became considerably more negative and experimental students became more positive. Just the opposite pattern occurred at eighth and ninth grades, however. There was a marked increase in the posttest means for experimental eighth graders, which means that they were evaluating themselves much more negatively at that time. Attitudes towards self of experimental ninth graders became slightly more negative on posttest also, but they still indicated that they had more positive attitudes towards self than ninth grade controls.

TABLE NO. 4

RESULTS FOR MYSELF: EVALUATIVE DIMENSION
(Semantic Differential)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Grade x School	2404.55	2	1202.28	3.77*
Error	2291.58	153	14.98	

Relevant Pre- and Posttest Means[1]
and Differences Between Means
(Combined Across Sexes)

	Experimental				Control				
Grade	N	Post	Pre-	Diff_1	N	Post	Pre-	Diff_2	Diff_1-Diff_2
7	49	7.85	8.17	-.32	38	8.84	7.57	1.27	-1.59
8	22	9.63	7.77	1.86	39	6.69	7.61	-.92	2.78
9	13	8.07	7.92	.15	24	9.29	9.79	-.50	.65

[1] The higher the score the less positive the self-evaluation.

Posttest conditions were the worst in the experimental eighth grade, which may be reflected in these students' increasingly negative attitude toward self. This also was the class that had a switch in teachers during the treatment period and these two teachers employed markedly different approaches, the latter's role being that of a counselor-teacher. The previously mentioned rebellion toward adults, possibly accompanied by some guilt over behavior and consequent aggression toward self, could show in these scores. On the other hand, their behavior simply might have been a manifestation of the temporary disorganization that seems to occur during later stages of adolescence before growth takes place. Redl (In Seidman, 1958) compares such preliminary loosening up of the personality to soaking beans before they are cooked. Perhaps youngsters were screened out of these two classes who had not quite reached this bean-soaking stage and were still more adult than peer-oriented.

Group image might have been a very significant factor. These students seemed quite aware that they were "a difficult class." They also appeared to be playing this to the hilt. Several times during the treatment period, however, some of the students at both eighth and ninth grades remarked that they "didn't belong in this group," referring both to intellectual ability and behavior. How might identification with such a group affect these students' self-concepts? And what might be the impact of teachers' expectations on these students' self-concepts? Self images do reflect the perceptions of others. What was happening to these students in other classrooms during the school day?

One of the reasons there were so few experimental ninth grade girls was that a number of them had requested transfers out of this class because of the attitudes and behaviors of some of the boys. These older girls probably were becoming more interested in physical attractiveness and social popularity. The interaction of the two sexes of this age may have affected both somewhat negatively, since these particular girls did not care to be associated with these boys. Developmental differences of the two sexes in social and physical maturity enter the picture.

Images of self are multiple, overlapping, and not easily clarified. Since the self seems to be at the core of human development, it should be particularly valuable to compare the attitudes of these low academic students, "C-laners" by reputation, with attitudes toward self of average and high achieving students in this same district. Factor analysis utilizing other adjectives on this particular semantic differential as well as those used in scoring the evaluative and dynamism dimensions, might yield varied loadings for different identifiable student groups, especially since these adjectives include risk-taking, characteristics associated with creativity, and other intriguing human attributes.

Total number of verbalized self-perceptions. On the number of different self-perceptions students verbalized in their essays there was significant grade by school interaction which was further complicated by differences between the sexes. There was a slight increase in the experimental seventh grade and a marked decrease in the number of self-perceptions expressed by experimental eighth and ninth graders. All three grade levels in the control school changed very slightly. It appears therefore that the significant interaction was in the eighth and ninth grades of the experimental school. An examination of classroom means separated by sex suggests that the further interaction of sex by grade by school might be explained by the marked decrease in the number of self-perceptions verbalized by the girls in these two classrooms. It appears there may have been some positive or sustaining influence from the curriculum at seventh grade level since the largest increase was within this group. It may be of interest to note that on pretest means there was a tendency toward greater verbality of girls in comparison to boys and that this occurred again on posttest with all but the eighth grade girls.

TABLE NO. 5

RESULTS FOR TOTAL VERBALIZED SELF-PERCEPTIONS
(Essay: My Career Interests)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Grade x School	1766.21	2	883.10	3.13*
Sex x Grade x School	1798.48	2	899.24	4.58*
Error	1696.89	153	11.17	

Relevant Pre- and Posttest Means and Differences Between Means (Combined Across Sexes)

	Experimental				Control				
Grade	N	Post	Pre-	Diff_1	N	Post	Pre-	Diff_2	$\text{Diff}_1\text{-Diff}_2$
7	49	7.49	7.27	.22	38	6.69	6.74	-.05	.27
8	22	6.04	7.18	-1.14	39	7.62	7.58	.04	-1.18
9	13	6.69	7.61	- .92	24	8.00	8.17	-.17	- .75

Pre- and Posttest Means by Sex, Grade, and School

	Experimental						Control					
	Means for Boys		SD	Means for Girls		SD	Means for Boys		SD	Means for Girls		SD
Grade	Pre-	Post		Pre-	Post		Pre-	Post		Pre-	Post	
7	6.56	6.59	3.41	8.87	9.53	6.21	6.50	6.45	2.39	7.00	6.94	2.41
	(N=34)			(N=15)			(N=20)			(N=18)		
8	6.54	6.38	3.99	8.11	5.56	2.51	7.32	6.23	3.02	7.94	9.41	2.29
	(N=13)			(N=9)			(N=22)			(N=17)		
9	6.33	6.11	2.80	10.50	8.00	1.83	7.59	7.59	4.02	9.57	9.00	3.92
	(N=9)			(N=4)			(N=17)			(N=7)		

The trend toward greater verbality of girls in writing essays is consistent with literature on sex differences (Anastasi, 1958). Another general consideration is that what students are willing to write about themselves cannot be equated with actual self-concept. Defensiveness and lack of awareness can influence perceptions of self. Verbalized self-perceptions are used in this study as indicators of self-understanding. The role of written communication skill also must be kept in mind.

Many previously mentioned factors could be repeated to explain the decrease in number of self-perceptions verbalized in essays by eighth and ninth grade students at the experimental school, e.g., teacher expectations, peer group values, school environment, or temporary personality disruption. It also could be explained by testing conditions alone. Concentration is especially important to writing, and it was very difficult to keep these eighth graders from talking when they should have been thinking and writing. There also was a tendency toward hasty completion in both classrooms, which appeared to have a snowball effect. Since the achieving C-lane students had been screened out of these two classes it seems logical to assume that they might have been less capable (or more restricted) in verbal expression than the controls, who presumably were fairly typical students at this level. The experimental girls on pretest, however, wrote considerably more about themselves than the control group. Maybe it was just that they had more to say than the controls or perhaps the controls were more cautious about what they said. Freedom of expression probably is related to independence and risk-taking, as well as to skill with verbal symbols. The same independence could have worked in the opposite direction on posttest if, for example, the experimental girls became resistant to the idea of sharing their feelings with adults. Another contributing factor for these girls could be their exposure to non-achieving boys (or a lack of exposure to achieving boys).

It appears the curriculum did serve to increase the number of verbalized self-perceptions in the seventh grade, particularly for girls. These girls tended to be higher initially than control group girls. Perhaps some of their increase in self-perceptions stemmed from greater initial verbal ability or freedom of expression.

Repeating this essay each year might be a valuable approach for ongoing school district research and for longitudinal studies of career development. In general there appeared to be a fairly consistent use of the scoring system categories, although only total numbers of self-perceptions were used in this study. A comparison of patterns of category usage across various age and ability levels would be of interest. It seems reasonable to assume, for example, that categories pertaining to increased awareness of influences from the broader society might increase with age. Analysis of category usage by students within classrooms could provide a valuable basis for developing curriculum experiences to meet needs of particular students, i.e., to indicate where students' images of self might be expanded. A variety of approaches to this might be used, including such activities as encounter group sessions, periods of reflection or meditation, creative expression, explorations of relevant literature, and individual conferences with students.

Specificity of second choice career goals. There was a significant grade by school interaction on the specificity of second choice career goals on the written interview. An examination of differences between pre- and posttest means reveals that there was less specificity on posttest than on pretest for all groups in both schools with the exception of the experimental seventh grade, which remained approximately the same. Eighth graders in both schools became less specific to about the same degree. Ninth graders in the experimental school became less specific to a greater extent than ninth grade controls. It appears that the curriculum experience may have had some sustaining influence on the specificity of second choice career goals at the seventh grade level.

TABLE NO. 6

RESULTS FOR SPECIFICITY OF SECOND CHOICE CAREER GOALS
(Item 5, My Plans)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Grade x School	159.91	2	79.96	4.26*
Error	151.47	153	0.99	

Relevant Pre- and Posttest Means
and Differences Between Means
(Combined Across Sexes)

	Experimental				Control				
Grade	N	Post	Pre-	Diff$_1$	N	Post	Pre-	Diff$_2$	Diff$_1$-Diff$_2$
7	49	2.66	2.64	.02	38	2.24	2.68	-.44	.46
8	22	2.46	2.95	-.49	39	2.44	2.94	-.50	-.01
9	13	2.38	3.15	-.77	24	2.58	2.95	-.37	-.40

A cursory examination of protocols revealed that more students simply did not list a second choice on posttest and that those who did had also been fairly specific on the pretest. This may be reflected in the decreased posttest scores for most groups. If this is the case the curriculum experience at seventh grade may have opened up some new possibilities to these students and helped them to consider and become involved in alternative goals. The previously described behaviors and attitudes of the eighth and ninth grade experimental students could have counteracted any positive influence of the curriculum experience. Because of adverse testing conditions these students perhaps did not want to bother with the last item on the written interview. Or it is possible that on posttest all students gave more serious consideration to this item, perhaps due to sensitization by the pretest, and realistically concluded they had no serious second choice goal. From this point of view the sustained mean of the experimental seventh grade might be considered a gain.

The timing for prevocational orientation may be crucial. Once students get involved in the junior high school milieu, their own social and physical maturation and the existing organizational structures (both formal and informal) and the rewards offered from these environments in which they live all influence them. They turn their attention to diverse pursuits, such as popularity, prestige, athletic and academic achievement, and appear to develop different life styles (Drewes, 1966), each with a different set of values. If students are helped to focus on career development prior to becoming a part of this milieu, it could help them to build a kind of core attitude toward their personal futures which might provide a slightly different perspective on the many other concerns of this age which are so much a part of growing up. This is not meant to imply a definite career choice at early seventh grade level, but rather, the mere beginning of serious attention to one of the most crucial developmental tasks they must face.

Many students in the late elementary school years are beginning to identify seriously with the adult world. They can be deeply moved by heroes and can aspire to become like famous people they admire. Peer influences can and do become stronger during adolescent years, but this does not require the relinquishment of adult models. Meaningful exploratory vocational experiences at the very beginning of junior high school may be like putting a foot in the door when youngsters are taking a significant step from elementary into secondary educational settings. They seem to have a readiness for serious challenge at this time which could be dulled by typical peer attitudes and pursuits. The experimental seventh graders in this study may have been sufficiently impressed by consideration of future career possibilities that they have given thought to possible goals and alternatives, even at this early age.

Using this same line of reasoning, another critical time in youngsters' lives might be at the very beginning of high school to counteract the swallowing up of students in that social milieu. Presumably the curriculum experiences would need to be adjusted for differences in maturity at these two ages, but systematic research would show whether, in fact, students are more receptive to career exploration as they take these two major educational steps. The central task of guidance (vocational or general) is that of building commitment to life. These may be two points in time when students are especially open to growth and consideration of the direction and shape they want their lives to take.

Seeking written occupational information from counselor's office. The significant grade by school interaction on the number of times students reported having sought written information from the counselor's office on their own during the treatment period appears to be among eighth grade experimental students and ninth grade controls. Since no attempt to obtain written information was scored as 1, it appears that few students except in these two classrooms were motivated to seek information. The experimental eighth graders had the highest mean.

TABLE NO. 7

RESULTS FOR BEHAVIORAL CHECKLIST (Item 1b)
SEEKING WRITTEN OCCUPATIONAL INFORMATION FROM COUNSELOR'S OFFICE
(Posttest only)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Grade x School	72.57	2	36.28	3.45*
Error	69.44	153	0.45	

Relevant Posttest Means[1]
(Combined Across Sexes)

Grade	N	Experimental	N	Control	Diff
7	49	1.16	38	1.16	0
8	22	1.54	39	1.05	.49
9	13	1.15	24	1.46	-.31

[1] Scores ranged from 1 (none) to 5 (more than 3 times)

No knowledge is available as to why the control ninth graders had a relatively high mean for this behavioral index. Control schools had been asked to withhold discussion of vocations until after the treatment period. It may be that preparatory to curricular decisions in senior high school, ninth graders ordinarily begin some career exploration on their own. There also was an attractive and easily available book shelf of career information in the counseling wing of the control school. Materials were not so clearly evident in the experimental school.

It is known that the counselor who took over the experimental eighth grade midway in the treatment period did discuss with these students the availability of such materials in the counseling wing and that, as part of the curriculum experience, she brought into the eighth grade classroom occupational materials appropriate for the career choices students gave on one of the curriculum questionnaires. Their response to "personalized" information was very positive and interest was especially high during this particular session. Careful examination of career information resulted in several students discarding career interests on the basis of what they had read. Perhaps this classroom experience prompted some of them to seek additional information on their own. However, in cooperation with the regular teacher, the counselor also provided the experimental ninth graders with some occupational information. With this group, however, there was neither the continuity of curriculum experience nor the student enthusiasm that had been shown by the eighth graders. The high quality of the eighth grade experience may have been the important factor influencing the results for this overt behavioral index.

Seeking written occupational information from school and public library. The significant grade by school interaction on the number of times students reported having sought on their own written information from the school and public libraries during the treatment period appears, again, to be in the experimental eighth grade. This indicates a positive outcome of the curriculum experience. A comparison of means on TABLES 7 and 8 shows that libraries were used slightly more than the counselor's office as a source of information.

TABLE NO. 8

RESULTS FOR BEHAVIORAL CHECKLIST (Item 1a)
SEEKING WRITTEN OCCUPATIONAL INFORMATION
FROM SCHOOL AND PUBLIC LIBRARY
(Posttest only)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Grade x School	292.83	2	146.42	3.65*
Error	279.49	153	1.83	

Relevant Posttest Means[1]
(Combined Across Sexes)

Grade	N	Experimental	N	Control	Diff
7	49	1.87	38	1.68	.19
8	22	2.72	39	1.54	1.18
9	13	1.76	24	1.92	-.16

[1] Scores ranged from 1 (none) to 5 (more than 3 times)

A comparison of TABLES 7 and 8 shows that seeking of written information from the two sources followed a somewhat similar pattern for the various grades in the two schools. Libraries appear to have been used somewhat more than materials from the counselors' offices, but neither source was used appreciably. The preceding discussion for TABLE 7 also applies here.

If relating career information to ongoing curriculum experience does affect overt behavior such as that reported here, this may be an important area for cooperative effort between counselors and teachers. These curriculum materials perhaps should be further developed with this emphasis in mind. Additional application and research is needed, of course, but positive results with these particular eighth grade students suggest that this might be a fruitful direction for effort. Another relatively simple way to gather research data about students' actual use of library materials is to keep a regular record of books and materials checked out of classrooms and libraries. Students also can keep reading lists or annotated bibliographies in English classes with vocational or biographical classifications as a part of whatever system of record keeping is used.

Attitude toward future work. The significant effect of sex on attitude toward future work shows that although the attitudes of both sexes became more negative, the boys in both schools were less positively oriented to the concept MY FUTURE WORK on the semantic differential at posttesting than girls. However, in terms of the over-all semantic differential scale, attitudes of both sexes were relatively positive.

TABLE NO. 9

RESULTS FOR MY FUTURE WORK: EVALUATIVE DIMENSION
(Semantic Differential)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Sex	2385.38	1	2385.38	4.42*
Error	2318.40	153	15.16	

Relevant Pre- and Posttest Means[1]
and Differences Between Means
(Combined Across Grade and School)

	N	Post	Pre-	Diff
Boys	115	7.20	6.11	1.09
Girls	70	5.50	5.27	.23

[1] The higher the score the less positive the attitude. Scoring range on semantic differential is from 3-21; 9 is neutral.

The girls in this study appeared to have quite positive attitudes toward MY FUTURE WORK. Although women in our culture increasingly are entering the world of work outside the home, they frequently have the option of marriage. However, it generally is accepted that boys in our culture are expected to become family breadwinners and attain some kind of success in an occupation. Achievement pressure on boys starts quite early. The sex difference in attitudes toward this concept may mirror resistance to such pressures among these junior high school boys and a relatively relaxed attitude on the part of girls. Future work may be evaluated positively by them because it does not appear very demanding of effort. These conjecturings, however, merely reflect commonly held points of view about sex role expectancies in this culture. There is no way of knowing precisely the meanings this concept had for these particular students.

It appears that the curriculum experience did not develop more positive attitudes toward future work among the experimental students. The extent to which more thorough and enthusiastic use of the materials might have done this is not known. The data suggest that the two sexes might profit from slightly different curricula. Perhaps for boys the excitement and joys of productive effort could be used to offset the possible burden of increasing responsibility and expectancy they may feel. Assuming girls have more positive attitudes to begin with, it might be valuable to help them appreciate fully their own potential for self-actualization and the need for full use of all human resources beyond pursuits stereotyped as "appropriate" for women. The previously described "humanistic" curriculum following TABLE 2 might serve to sustain and create in both sexes a valuing of human productivity that would move them more dynamically toward active involvement in developing their own futures.

It cannot be assumed, of course, that all boys would have less positive attitudes than girls toward their future work. Performance of these C-lane students on this instrument should be compared with attitudes of students from the complete spectrum of academic achievement. Looking at the attitudes of students with different career goals (technical, professional, and in different areas of specialization) toward their future work also would be of interest. Comparing attitudes toward this concept and attitudes toward the concept MYSELF in diverse populations also should be intriguing research.

Likelihood of career achievement. The significant effect of sex on students' perceptions of how likely it is that they will achieve their first choice career goal or interest suggests that girls in both schools became more confident about this than boys during the eight-week period.

Boys, however, did not become less sure because their pre- and posttest means were about equal. Looking at the size of the means relative to the five-point multiple choice possibilities of this item, both sexes in this sample appear to feel relatively confident that they will realize their current goals.

TABLE NO. 10

RESULTS FOR LIKELIHOOD OF GOAL ACHIEVEMENT
(Item 2, My Plans)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Sex	138.99	1	138.99	7.48**
Error	132.51	153	0.87	

Relevant Pre- and Posttest Means[1]
and Differences Between Means
(Combined Across Grade and School)

	N	Post	Pre-	Diff
Boys	115	3.89	3.86	0.03
Girls	70	4.06	3.66	0.40

[1] Scores ranged from 1 (low) to 5 (high)

This sex difference in favor of girls (the most significant F in the study) is consistent with the description following TABLE 9 of girls' more positive attitudes toward future work. Since the curriculum experience had no apparent influence on this variable, perhaps their average perceptions on posttest of better than 75% likelihood of career achievement grows from greater self-confidence in general on the part of girls. It may be a confidence specific to this one developmental task, or possibly from setting goals that are fairly easy to achieve in comparison to those of boys. Since boys must venture forth into a competitive and changing world, a certain amount of apprehensiveness on their part may be both realistic and healthy. They might report greater self-confidence than girls in other dimensions of life.

The "get married and live happily ever after" dream probably has pervaded the lives of maturing young ladies for a long time. Many girls, therefore, may not seriously intend to venture into areas requiring boldness or courage, even though they may have expressed interests in such careers in their essays and written interviews. Practically no girls mentioned marriage as a career. This does not mean "finding the right man, getting married, and raising a family" does not figure into considerations of the future.

A previous survey in this district (Norris and Sherman, 1966) revealed a similar lack of mention of marriage as a "career." Many people would consider this a critically important area for maturing boys and girls to consider, since many marriage conflicts are related to those revolving around expected role behaviors and full use of women's potential. This dimension of family life education perhaps should be integrated with vocational guidance curriculum. It would be interesting to study the relative importance girls (and boys) attach to marriage in comparison with their occupational interests.

This sex difference, of course, might not occur with all students. It is possible that these C-lane students may be expressing more self-confidence than they really feel as a defense against anxieties that stem from being at the low end of the achievement continuum in this community. Girls with more masculine career interests may feel more apprehensive about likelihood of goals achievement, especially if they realize the height and range of hurdles they will be required to leap. Girls and boys from lower socio-economic backgrounds, many of whom have been reared in less "successful" environments than these students, might differ markedly in the extent to which they would predict future career goal achievement. There is also the matter of realism to consider. What is to be done with students who choose to become doctors even though they can scarcely write a complete sentence? Self-confidence hangs tenuously in the process of bringing together assessments of abilities, opportunities, and goals. Building realistic self-confidence, a central task of all education, may be the particular responsibility of curriculum innovators and counselors. It is an area which merits further research.

Effort to achieve first choice career goal. In terms of the five-point multiple choice item students checked for amount of effort they intend to put forth toward achievement of first choice career goals, both sexes indicated they would exert considerable effort. There was a decrease for both sexes on posttesting, however, and examination of the differences between means shows that the significant effect of sex was due to a greater decrease of intended effort for boys in both schools. The girls' mean decreased very slightly. It appears the curriculum experience did not increase students' intention to exert themselves in the direction of a specific career goal.

TABLE NO. 11

RESULTS FOR EFFORT TO ACHIEVE FIRST CHOICE CAREER GOAL
(Item 3, My Plans)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Sex	107.56	1	107.56	4.57*
Error	104.44	153	0.68	

Relevant Pre- and Posttest Means[1]
and Differences Between Means
(Combined Across Grade and School)

	N	Post	Pre-	Diff
Boys	115	4.16	4.30	-0.14
Girls	70	4.42	4.47	-0.05

[1] Scores ranged from 1 (low) to 5 (high)

The mere act of writing the pretest essay probably sensitized both sexes to the whole idea of career development. Ordinarily, careers are not a major focus at junior high school age. Perhaps this served to clarify thought. If boys do have more at stake as far as career expectancies are concerned, their minds may have been stimulated to scan multiple possibilities. Perhaps on posttest they were not so sure their effort would be expended toward the particular interest they had stated. Having to list steps they would take to achieve this goal might have brought about greater consciousness of the tasks they confront.

Girls in this community appear to choose from a somewhat narrower range of career possibilities (Norris and Sherman, 1966), so they might tend to be more sure about both their choice and the effort they will put forth. If their goals are not as difficult to realize it may be easier for them to say they will put forth effort to achieve them.

From the standpoint of curriculum students need much more opportunity to explore career possibilities than these students have had. In this sense, the relatively high means could be interpreted as being somewhat negative. Is there too much closure at too early an age? Ample clarification should precede commitment to goals. To what extent do students really understand what is involved in the career interests they have? It would be valuable to follow these students longitudinally to determine the extent to which both their goals and intended effort might change, especially subsequent to thorough exploration of their tentative career choices.

Specificity of first choice career plans. The significant effect of grade on specificity of plans students list in essays for achieving their first choice career goals appears to stem from an increase in specificity at the seventh grade level and a decrease at both eighth and ninth grade levels. An examination of pretest means suggests a pattern of increasing specificity with higher grade levels, but this is not repeated on the posttesting. The seventh graders, who were least specific of all on pretest were the most specific on the posttest. In terms of the five-point rating scale used for this measure, all of these junior high school students tended to be relatively unspecific in plans they were able or willing to outline in writing for movement toward their major career interest.

TABLE NO. 12

RESULTS FOR SPECIFICITY FIRST CHOICE CAREER PLANS
(Essay: My Career Interests)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Grade	300.78	2	150.39	3.43*
Error	287.87	153	1.88	

Relevant Pre-and Posttest Means[1]
and Differences Between Means
(Combined Across Sex and School)

Grade	N	Post	Pre-	Diff
7	87	2.65	2.20	0.45
8	61	2.24	2.61	-0.37
9	37	2.59	3.10	-0.51

[1] Rating scale from 1 (low) to 5 (high)

Somewhere in the context of commitment to goals and expression of intent to achieve them should come a delineation of steps which can be taken to actualize these commitments. Students need exposure to much information, perhaps via diverse media, so they have realistic notions of what will be demanded of them. Again, junior high school youngsters have had little formal education along these lines, and curriculum experiences of the experimental students appeared not to affect the specificity of plans they had for achieving first choice career goals. It was age or grade level that seemed of importance. All of the younger students just entering junior high school tended to become more specific during the treatment period.

Perhaps a combination of (1) openness or readiness at the beginning of junior high school and (2) sensitization or provocation by writing essays on career interests at the very opening of school worked to start these youngsters thinking about their futures. As was mentioned in the discussion of specificity of second choice goals (TABLE 6), students may be ripe for career exploration when they take big steps within the formal educational structure. Although increase in specific knowledge of steps might be expected with age (which was suggested in the pretest), the decrease in specificity of plans for eighth and ninth grades makes this somewhat questionable, unless the drop resulted from such factors as a general reaction of older, more independent students to being tested a second time within a two-month period, preoccupation with social relationships, particularly with the opposite sex, or extremes of complacency or anxiety about the future.

It is possible that older students entertain a wider range of possibilities and tend to become less specific for any one goal when they begin to give the matter serious thought; this might be desirable. Perhaps they tend to scan rather than to focus attention. This general notion seems to fit data gathered earlier in this district (Norris and Sherman, 1966), in which it was found that over 40% of the sixth graders sampled tended to focus on only one career interest, while a high percentage of eighth, tenth, and twelfth graders were considering three or more interests. In addition, from all four grade levels those who had not made a tentative choice indicated they needed more career exploration and it was the twelfth graders in this group who felt most unsure of themselves. Is it possible they might have been very specifically focused in earlier years then later changed their minds?

Longitudinal study of these particular seventh graders might provide further understanding of the meaning of specificity in career planning at this grade level. It also seems important to check out through further research the possibility of greater readiness to vocational guidance at the very beginning of both junior and senior high schools and to look for any possible developmental tendencies from late elementary through senior high school years. Is it possible that specificity in planning reflects different kinds of attitudes or preoccupations at different stages of development?

Factors perceived as influencing career achievement. The only significant effect for this variable was a three-way interaction of sex, grade, and school, which provides no clear-cut evidence that the curriculum had any effect. An examination of both pre- and posttest means reveals that these junior high school students listed very few factors perceived as influencing whether they might or might not actualize their first choice career interest or goal. Comparison of both pre- and posttest means for the two sexes within classrooms reveals that girls tended to list slightly more factors than did boys and that the means of seventh graders in both schools increased slightly whereas the other two grade levels indicated no consistent tendency.

TABLE NO. 13

FACTORS PERCEIVED AS INFLUENCING CAREER ACHIEVEMENT
(Item 4, My Plans)

ANALYSIS OF COVARIANCE

Source	SS	df	MS	F
Sex x Grade x School	217.24	2	108.62	3.37*
Error	208.08	153	1.36	

Relevant Pre- and Posttest Means
(Sex, Grade, and School)

	Experimental						Control					
	Means for Boys		SD	Means for Girls		SD	Means for Boys		SD	Means for Girls		SD
Grade	Pre-	Post		Pre-	Post		Pre-	Post		Pre-	Post	
7	0.88	1.21	0.91	1.07	2.00	1.56	1.05	1.25	1.37	1.11	1.28	1.23
	(N=34)			(N=15)			(N=20)			(N=18)		
8	0.85	1.31	1.18	1.67	1.00	0.87	1.45	1.00	0.98	1.65	1.65	1.06
	(N=13)			(N=9)			(N=22)			(N=17)		
9	1.44	1.22	1.20	3.25	1.75	2.21	1.24	1.24	1.39	1.43	2.14	1.46
	(N=9)			(N=4)			(N=17)			(N=7)		

It appears that junior high school youngsters have thought relatively little about influences on future career achievement, which is to be expected. This suggests that focus upon the human element and external forces impinging on individual development might be fruitful directions for curriculum development, for example, through discussion of such topics as fears, need for support, the roles of achievement, and opportunity.

The kinds and frequencies of factors students actually listed on both pre- and posttest appear in TABLE 14. Having students gather, analyze, and discuss data of this sort might help them gain considerable insight into their own and others' concerns. As can be seen, these C-lane students perceived school achievement and personal characteristics as most influential. Only the total number of factors given were used in this study; this frequency tabulation is offered merely to provide further understanding of the subjective worlds of these particular students.

Comparison of students' perceptions at different age levels, elementary through college, should reveal increasing awareness of the multiple influences on students' lives and perhaps indicate varying concerns at different stages along the way toward increasing maturity and eventual career decision-making, thereby providing meaningful cues for personalized curriculum and/or counseling.

TABLE 14

FREQUENCY TABULATION OF FACTORS STUDENTS LISTED AS INFLUENCING CAREER ACHIEVEMENT (Item 4, My Plans)

(Combined Across Sex, Grade, and School)

	Pretest	Posttest
Factors related to school and formal education:		
Taking advantage of available education	50	48
Getting passing or failing grades	20	20
Dropping out of school	3	6
Impossibility of getting good education within existing system	2	0
	75	74
Personal characteristics:		
Having or developing necessary skills or intelligence	22	11
Determination to pursue career	26	17
Diverting interests or change of career plans	15	18
Having necessary physical characteristics	4	7
Having good or appropriate personality	3	8
Related interests	0	6
Enjoyment of work	12	2
Age	1	1
	83	70

TABLE 14 (Continued)

	Pretest	Posttest
Influence and encouragement of people:		
Parents	21	14
Other relatives	2	2
Teachers	2	0
Friends	1	5
Other people	9	12
	35	33
Opportunities and influences of the broader society:		
Marriage	6	7
Military service	5	7
Chance to prove self or to get experience	13	24
Media	0	1
Finances	15	3
Location of work	0	5
Race	1	0
Luck	1	0
	41	47
Health and well being		
Illness	5	4
Death	2	9
Accidents	0	4
Dangers involved in work	2	4
	9	21

The preceding analysis of results has been based upon significant F's and their relevant means. A range of instruments was used: overt behavioral checklists, multiple choice items, subjective written expression, and the semantic differential. These measurements may not have tapped the most crucial variables at work in these particular classrooms and the variables for which they were intended may not have been touched by the treatment. There are known limitations of instruments in capturing elusive variables in human behavior, especially in naturalistic settings where dynamic interactions cannot be controlled. Some of these measurements may have been too subtle and some too direct.

Caution must be used in generalizing the results to populations, circumstances, and settings unlike those in this study. Some special limitations to be kept in mind are the brief and highly compressed treatment period, screening of achievers out of experimental eighth and ninth grades, difficult classroom circumstances under which the curriculum materials were tried, and dissimilar test conditions in the experimental and control schools. In other circumstances with other groups quite different results might emerge with these same instruments.

IV. Conclusions and Recommendations

The purpose of the study was to determine the extent to which application of an innovative vocational guidance curriculum might bring about increased self-understanding and career motivation in C-lane ("vocational") junior high school students over a short period of time. Actually, very little can be said about the effectiveness of the curriculum in bringing about these desired attitudinal changes; conditions under which the study was conducted simply did not allow for an adequate trial of the materials. There is far more to research in school settings, however, than statistical results. In addition to presentation of these data in the preceding section, relatively detailed discussions were given of possible implications and recommendations for further research relevant to each of the significant variables. Conclusions will include a brief review of the findings, key implications for curriculum development, and directions for research which seemed to emerge from them, practical considerations for application of the curriculum materials which were both observed and reported, and recommendations for further use, development, and testing of the materials.

Brief review of the findings. In terms of the major purpose of the study it appears that the curriculum at the seventh grade level may have had a positive effect upon attitude toward self (as measured by the evaluative scores on the semantic differential for the concept MYSELF), possibly some positive or sustaining influence on self-perceptions (used as an indicator of self-understanding and measured by the total number of perceptions about self verbalized in essays on career development), and a sustaining influence on specificity of second choice career goals (used as an indicator of career involvement and measured by a 5-point rating scale). Seventh graders also appeared to be more specific in first choice career plans (as measured by ratings from a 5-point scale of steps for goal achievement listed on essays), but this appeared to be a characteristic of the age or grade level, rather than a curriculum influence.

There may have been a positive influence upon eighth graders in the number of times students sought written occupational information on their own from the school and public libraries (posttest only measures as reported by students on overt behavioral checklist, used as an indication of career involvement).

Some sex differences appeared and perhaps others which did not emerge clearly in the data were influential in the effect of the curriculum upon experimental students. Prior screening of achievers out of the eighth and ninth grades of the experimental school may have left boys and girls with quite different characteristics than those in the control groups. This, in turn, may have touched off different interaction patterns between the sexes in these classrooms. The data indicate that boys tended to have less positive attitudes than girls toward future work (as measured by evaluative scores on semantic differential for concept MY FUTURE WORK). During the first eight weeks of the school year boys decreased slightly more than girls in their intentions to put forth effort toward realizing their current major career goal (measured by multiple choice item on written interview). Girls' perceptions of the likelihood of career goal achievement increased more than boys' perceptions during the treatment period (measured by multiple choice item on written interview).

Implications for educational practices and curriculum development. Ideas for educational innovation which seemed to fit the data and may be fruitful directions for educational innovation, as well as areas which might profitably be emphasized in existing school programs, were discussed in detail in Section III. Only a brief overview will be given here.

It appears there should be increased interaction about career possibilities between C-lane junior high school students of this district and both their parents and school personnel. Greater attention might well be given to parent education and how all adults who are significant in students' lives can complement one another's contributions to their healthy growth and development.

A more "humanistic" curriculum seems to be desirable, in which there is a wedding of "general" and "vocational" guidance. Major objectives for vocational purposes perhaps should be those of helping students to find deeper personal meanings, creating in them a sense of commitment to life, and building positive self-images and realistic self-confidence sufficient to move them into appropriate and productive implementations of self in the world of work.

Secondary goals, and perhaps means to the above major objectives, might best develop from an integration of guidance and curriculum within the classroom. Closer cooperation between counselors and teachers, perhaps using a team approach, seems promising, but such active involvement in the teaching process might require some re-education on the part of many teachers and counselors. It is clear, however, that the needs of students with "C-lane" characteristics frequently are not being met under the existing system. If students cannot be changed in what the culture considers to be desirable directions, then perhaps both the system needs to change and the directions of the culture reconsidered.

Suggestions for suitable methods of achieving the above goals include direct encounters with real life and people, enthusiastic and stimulating teacher models for identification, and using adolescents' growing independence and need to achieve a sense of responsibility as motivators. Full use of all media in presenting highly dramatic and meaningful understandings of a wide range of career possibilities should work for more effective learning. Creative-aesthetic expression, nonverbal experiences, and expression of feeling might be facilitated by a counseling-type approach.

Appropriate topics and activities suggested by the findings include using self-perceptions as cues for curriculum development, broadening students' perspective of influences on their own development, occupational information based on personal interests and presented with continuity of curriculum experience and in harmony with goals, commitments or values, and plans and intent to achieve these goals. Other approaches might include getting students (who may be resistant to adult pressures or the system in which they function) actively involved in planning and organization of a vocational curriculum which suits their needs. This might include gathering data about their own problems and interests. Differential emphasis for the two sexes in certain areas seems in order, especially where sex role expectancies and possible conflicts can develop, e.g., attitudes toward marriage, responsibilities, full utilization of human potential, the joys and values of productive effort.

Implications for research. It seems that research relative to vocational curriculum should be preceded by concentration on artful curriculum development, perhaps in the directions just described. The question also was raised of appropriate timing for vocational guidance curriculum experiences. The hypothesis was offered that a state of readiness for serious preliminary but tentative career exploration may be at the very start of junior high school. There may be greater openness to challenge and change before students become enmeshed in the milieu of a new environment. It is further hypothesized that proper and appropriate emphasis when a big educational step is taken may bring conscious focus upon a core developmental task which can provide students with a more balanced perspective of their new environment. In other words, serious career exploration at this time might serve as a rack upon which each student can hang the various hats he wears in the process of maturing and expanding as an individual. The same readiness might exist at the very beginning of senior high school.

Some conclusions can be drawn about the instruments used in this study. The impact of curriculum experiences on students probably should include, among other measures, changes in attitude and overt behavior. Delayed posttesting might be most effective for both of these. Attitude change does not always show up immediately, some disorganization may precede personality integration, and people do not always become moved to act immediately after a stimulus is received. Allowing more time for the behavioral checklist and counselor contact sheets, for example, might have been valuable. As it was, there were insufficient data during the short time period of this study even to use the counselor contact records.

The use of subjective data, structured within and by the individual, seems to be an important supplement to data which comes from responses to external structurings and conceptualizations. The use of essays may hold promise as a means of viewing the self and world through the student's eyes, but the content analysis system developed for use in this study (see APPENDIX E) included only scoring of total self-perceptions, not sub-categories. Patterns of category usage may vary with different subjects, e.g., increasing awareness and use of some categories with maturation and experience. This might mean adding new categories, as well as refining the existing ones. Writing serves to clarify thought, which, in turn, may sensitize subjects via instigation of a questioning and scanning process. As a pretest measure it really may be initiating the treatment, hence research should be designed which can examine effects of pretesting.

Other problems present themselves, such as written language skill. It may be comforting to note that even with these low academic students considerable insight into individuality came through the written word. Ideas can be detected even if form is below standard. Testing conditions can influence both quantity and quality of thought. There are advantages to taking students out of the classroom to write essays, perhaps into counseling rooms and in groups of 4-6 students. This would tend to remove the tester from the traditional authoritative teacher role, increase one-to-one interaction between student and investigator, and allow for more assistance with writing skills. It appeared that absentees from classroom testing sessions who later wrote under these conditions, seemed to feel there was greater interest in them as individuals. Essays also could be dictated in extreme cases, e.g., those involving language or physical disabilities. The length of time between writing may be important. Students can recall what they wrote previously and be influenced by this; they may be resistant to repetition. It might have been more advantageous, for example, to have students in this study write their essays at the end of the school year rather than at the close of the treatment period. Extending the treatment period to a semester and interspersing the vocational materials with other curriculum content, would have allowed more time between the two essay writings without adding concern for extraneous variables.

The written interview and semantic differential were easy to administer in the classroom setting. Only adjective pairs for the evaluative and dynamism factors of the semantic differential were used. Administration to a cross-section of students in this district and subsequent factor analysis might yield quite different loadings for various identifiable student groups.

Curriculum research also should include evidence of overt behaviors observed in the process of experiencing the curriculum, which was beyond the scope of this study, as well as students' perceptions of how meaningful the experiences have been in their lives. These would provide indications of value and appropriateness for particular students and cues for curriculum revision and expansion.

Sex differences appeared often enough to warrant a recommendation that these be carefully investigated in vocational research. The fact that there were many more boys than girls in the low academic classes used in this study is of interest. In addition, looking at possible differences between students of the type involved in this study and those of varied ages, ability levels, personal characteristics, life styles, socio-economic backgrounds, and career goals was recommended. Some specific research areas which were suggested include (1) the amount and quality of parent-child interaction about careers, (2) self-images, (3) comparison of group and individual attitudes toward concepts relevant to career development, (4) students' intentions and predictions relative to goal attainment, and (5) further exploration of the meaning of specificity of career goals and plans.

Longitudinal research was suggested, especially of the junior high school students identified in this study. Although all of them are located at the lower reaches of the academic-achievement spectrum of this technical-professional community, they appear further classifiable by distinct behavioral-attitudinal characteristics which may have important implications for their future development. The fact that they are young allows ample time for follow-up while they remain in the school setting. With increasing technology and educational opportunity it seems likely there also will be increasing expectancies for youngsters to become technical-professional adults. What it means to be a "vocational student" may change as the culture changes, just as career information will need to change to fit emerging occupational needs. Learning more about these "C-laners" of a relatively privileged and comfortable community may be a source of valuable data for future educational planning.

Teacher response to trial of the materials. Although it was not originally included as part of the study, it seemed increasingly important as the treatment period progressed to gather some evidence of experimental teachers' responses to participation in the study. Even though there were few teachers involved, they were representative of human uniqueness. Based on observations, teacher comments made at seminar sessions, and assumptions underlying the development of the materials, an evaluative form was developed. Teachers completed this at the end of the treatment period, when most of them also wrote brief self-descriptions (see APPENDIX A). The responses of individual teachers to the items are identified only by number. They used the full scale range on most items; perhaps such diversity among teachers is to be expected in most school environments, due to varying personal characteristics and philosophical-psychological bases for teaching. Only a general picture of their responses is given here.

The first section was on the extent to which participation in the trial of the curriculum materials had stimulated or increased in them certain major appreciations, awarenesses, understandings, and concerns. In general, they indicated considerable movement toward a more guidance-oriented viewpoint in the classroom and greater concern for the self-concepts and individuality of their students. The experience seemed to have provoked thought concerning guidance content and how activities might be built into the subject matter of English courses, as well as to stimulate a research orientation and interest in data based on their own groups or district. All teachers felt that in spite of the problems encountered, participation had been a growth experience for them.

The items of this section on which they appeared to have been least affected were appreciating the developmental tasks and cognitive processes that had been used in the format of the teacher lesson plan sequence. Most teachers felt they had gained little or no understanding of the affective objectives. One explanation of this is their request for a simple one- or two-page lesson guide for each section which told them what they were to do and what students were to do in response (see APPENDIX B). This they wanted because they felt too pressured for time to read the manual. Since the manual was used so little, they actually had limited opportunity to become familiar with some of the basic and complex dimensions involved in these particular curriculum materials. It seems clear that giving teachers written guides and even providing them with all materials for student use is not enough. They have busy schedules and heavy workloads, especially at the start of a school year. Spelling out the various categories of the affective taxonomy in writing, for example, may have presented too much verbal complexity. No conclusions can be drawn about the practicability of the taxonomy on the basis of this study; it simply was not used. It appears, however, that either ample time for study or some direct teaching and detailed discussion of the cognitive processes and attitudinal objectives is needed.

Another section asked how teachers felt they might be able to use the materials over a semester or school year. Again, there was a spread from one extreme to the other. In general, they seemed to feel they could integrate vocational guidance content and academic English content and skills to some extent with both high and low academic students. This is encouraging in terms of breaking down the unrealistic dichotomy between vocational and academic programs. They even felt they could involve students directly in the data-gathering process, which is one of the basic activities in the materials not utilized in this trial. Most felt the questionnaire and writing assignments could be used for personal dialogue with students and as a means of getting to know them as individuals.

As for curriculum sections they felt were most appropriate for their particular students, individual teachers had definite preferences for their groups and all six sections were mentioned either as appropriate or as a section to which their students had been most responsive. They reported having used the materials relatively little in terms of what should have been done to cover the materials adequately. More time was needed.

They were asked to check how comfortable they felt with certain dimensions of the curriculum. Graph reading and interpretation was checked at both extremes, as was having these C-lane students work in small groups. Most felt comfortable with de-emphasizing grades, with helping youngsters move toward an objective appraisal of self, and with use of a scientific approach. The open-endedness of many of the lessons--not knowing exactly what students might select from each lesson or how they might integrate it--seemed not as easy for them to handle. Most of them did not feel very comfortable with checking the teacher evaluative sheets for evidence that behavioral objectives were being approached. This may stem from the time it required and the fact that they were not using the manual which described the objectives to which the evaluative devices were related. One teacher expressed not feeling comfortable because there was no sense of involvement, but rather, a feeling of being "pushed like a button." Although one teacher did withdraw from the program, they agreed to participate upon request; it was not voluntary participation. This undoubtedly created some resistance to the study. These particular teachers apparently were not in a state of readiness to use new materials, as they had been perceived to be. Teachers' difficulties were compounded by having to start the treatment period at the opening of school (necessitated by funding deadlines) before classroom behavior standards had been established. This was especially critical in the volatile eighth and ninth grades.

A list of obstacles, both observed and expressed, was included. Teachers unanimously felt that not having the curriculum manual prior to the start of school had created difficulty for them. If all participating teachers had been in attendance at the June orientation meeting they perhaps could have been given them for use during the summer. This was not done, however, due to concern for equal access to materials and equal time for all experimental teachers to use them. Two other obstacles felt by most were the highly compressed time period, resulting in students becoming somewhat saturated with the materials, and the need or desire to structure lessons in their own way. Most other items again showed a full range of response.

Their recommendations for future use of the materials reflected a range of differences. The fact that one teacher checked the extreme negative end of the scale on almost all items throughout the questionnaire may explain the extreme spread of responses. Teacher-counselor cooperation in both planning and teaching seemed to have the most positive reaction from this section.

Since the problem of bringing about educational change is one of the utmost importance, the fact that, although this small group of teachers reacted negatively to some facets of their participation in the trial of these materials and to the materials themselves, they also reported some positive changes in attitude toward their own students and the opportunities for "vocational guidance" they might be able to provide for them within the existing educational structure.

Teachers were asked for additional suggestions. These included the relatively common practice of a vocational unit at ninth grade stressing reading about and investigating various careers, plus integrating the materials with related English units (particularly literature) during the school year. One felt there should be more concern with reasons some students do not respond to the academic routine. Most felt there should be less abstraction or more varied, concrete, and direct experiences for C-lane students. One suggestion made in seminar was to use these materials during a summer session along with a half-day of direct work experience. Others suggested supplementing the materials with many aesthetic, non-verbal experiences.

One teacher felt there should be a complete reorganization of the school system to create a separate vocational school with its own vocational curriculum rather than trying to incorporate a "Career Planning" unit into the existing school structure. This point of view appeared to be based upon the assumption that many C-lane students are working toward inappropriate goals for them and that they belong in strictly "vocational" (in the traditional sense) programs. Such varied perspectives may serve to explain the range of responses on the questionnaire and the amount of time the materials actually were used in the classroom.

Recommendations for practical application and further development and testing. Since the original intent of the study was complicated by limiting circumstances under which the materials were tried, the recommendations which follow cannot be based upon clear-cut evidence. Instead, they stem from a blend of statistical results, realization of the complexities involved in bringing about educational change, observation of actual implementation of materials in some of the classrooms, counselor perspective, teacher evaluations, and, no doubt, some investigator bias.

(1) The materials actually have not been adequately tested in their present form. It is likely that they could be used effectively much as they are with junior high school students of higher verbal-quantitative aptitude and academic achievement motivation. If used with low ability youngsters they should be adapted downward to match the skills and concepts of particular groups of students, especially in the addition of concrete, personal bridges to the more abstract conceptualizing in the materials. This should be in addition to, however, not in place of the verbal-quantitative experiences so needed by low academic students who must function in academic environments. The materials are based upon this premise, which necessitates individual teacher adaptation and ingenuity. Due to quantity of graphs, these should be used selectively, perhaps even with high ability youngsters. Lesson and teacher evaluative devices also should be used according to available time, interest, and student ability.

(2) The materials need to be tried with senior high school students, since there are research data included which are relevant to older students, as well.

(3) Usage should extend over a longer period of time. If interspersed with other curriculum content they could be used for a semester or even a school year.

(4) Integration with social studies courses might prove more profitable than with English classes, since communication skills are used in both areas and the social studies offer a broad occupational perspective into which the materials could be integrated.

(5) The curriculum materials may have the potential for being developed in the direction of a "humanistic" wedding of general and vocational guidance.

(6) Teachers and counselors who use the materials and develop them further should be those who are interested in youngsters' career development and have some emotional investment in this as an educational objective. Materials alone cannot bring about commitment, teacher attitude can produce negative attitudes in students toward materials, and the power of individual human choice cannot be ignored.

(7) Ample time for teacher orientation and preparation should be allowed. Groups of teachers and counselors working together on ways of concretizing, dramatizing, and personalizing the curriculum probably would be the most effective means of integrating the guidance curriculum and traditional subject matter.

(8) Teacher-counselor discussions of individual students following classroom applications should facilitate greater understanding of the progress of both individuals and groups.

(9) Effort should be made actively to involve teachers using the materials in the data-gathering process in order to generate in them enthusiasm for research and discovery. Data actually being gathered on students in their classrooms in the process of curriculum application could become the vehicle for this.

(10) Demonstration of teachers and counselors working cooperatively in actual classrooms in the adaptation of the materials to particular groups may be the most effective way of generating interest and fuller participation of teachers. Videotaping might be helpful, especially for purposes of analysis and discussion of alternative approaches to handling particular lessons.

(11) Some direct attention should be given to the affective objectives, cognitive processes, and developmental tasks for the various lessons. Teacher evaluative devices must be viewed in relation to the behavioral-attitudinal objectives for which they were developed. Joint teacher-counselor use of these devices might be most economical of time and result in refinement of the devices based on practical application.

(12) A workshop-type of approach which integrates many of the steps outlined above should tend to involve teachers and counselors in creative cooperation, build positive attitudes toward the tasks of vocational guidance, result in refinement, revision, and expansion of the curriculum materials, and create an atmosphere conducive to systematic investigation of the effect continuity of curriculum experiences such as those outlined in these materials might have on students.

(13) Rather than testing for effects of the total curriculum, individual sections of the materials might be treated in the above ways by different groups of teachers and counselors. These sections then could be tested with students of different ages and characteristics. This would minimize the load on any one group and provide a larger reservoir of ideas and perspectives.

(14) Assuming the above steps were taken, a population of teachers with positive attitudes toward vocational guidance might exist to whom

students then could be randomly assigned to experimental treatment and control conditions. This approach would rest upon the assumption that perhaps the most crucial variable in the educative process is the teacher and that if teacher attitude toward curriculum materials could be held relatively constant the impact of such experiences on youngsters might be more adequately measured.

Perhaps the hindsight just outlined can become someone else's foresight in working toward fuller development of human potential.

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APPENDIX A: TEACHERS OF EXPERIMENTAL CLASSROOM UNITS

At the end of the treatment period, participating teachers were asked to write brief descriptions of their characteristic teaching styles and predominant values in the classroom. They also were asked to complete an evaluative questionnaire relating to their participation in the tryout of the materials. Both self-descriptions and a summary evaluative form follow. Teachers are identified by number only.

Teacher #1:

"I am the kind of person who believes students' affective needs must be dealt with before they are free to engage in activities designed to meet cognitive needs. The student who feels secure in the classroom can experience direct involvement with fellow students, with me as a person, and with the content presented. I hope my approach to students in the classroom provides:

1) a model of attentive behavior, in other words, "Can I listen to them?"

2) an atmosphere in which contributions made by students are valued.

I see growth in my students on an individual basis. I look for movement in the general direction of involvement and respond to behavioral evidence of increasing involvement by recognition, sometimes praise, and by responding to the student's good feeling about himself when he is involved."

Teacher #2:

"I'm more concerned with what the students are doing than what I am doing in front of them. I try to serve as a guide in helping them work independently. When the class functions as a whole, I try to use discussions with the hope of bringing students to conclusions inductively. I do not know how to lecture and become uncomfortable when I occasionally find myself starting to lecture."

Teacher #3:

"In this classroom, because of behavior problems, my approach was highly structured. I presented the material quickly and concisely, asking for comments and questions, but not allowing comments which were not pertinent to the topic under discussion. While the students were working at their seats, I circulated as much as possible among the students, answering questions and encouraging. Many times I had to correct behavior problems.

In each class I have I try to assess student needs. In my estimation, the greatest needs of these students are these: that each student think of himself as a worthy person, that each student have realistic goals for the near and distant future, and that each student gain an ability to make himself act in socially acceptable ways. I value behavior patterns which indicate growth in these areas. I try to be strictly fair and honest and realistic in any information or direction I give these students."

Teacher #4:

"A good teacher should genuinely love the children he teaches. This must not be a theoretical love but one which shows itself in concern for each individual child and a continuing attempt to understand each action and each word of the child.

Since this concern is individual, the teacher himself must be an individual. Though he must present himself as himself and not as a stereotype, yet he must at the same time maintain the respect of his students. Though children certainly appreciate sincerity and warmth in a teacher, they by no means expect a teacher to be the type of buddy that their buddies are. Their young minds and personalities recognize only too well the maturity gap that necessarily exists between themselves and the teacher they like and respect.

In view of this recognition, the good teacher has a sense of humor, enjoys both teaching and the children he teaches. Yet both he and they know that there are limits. The concrete limit to enjoyment of the classroom situation is the hard work of learning what has to be learned. Though it is true that learning can be enjoyable, it is also true that hard work is never 100% enjoyment. Concentration, self-discipline and self-sacrifice just don't happen automatically and with the spontaneity of a laugh. The children realize this. Yet they can be greatly encouraged and motiviated to accept the apparently bitter with the sweet if they are fortunate enough to experience a teacher who is himself hard working and self-sacrificing, and at the same time content and happy. Perhaps they might come to realize that the truly happy person is the one who most unselfishly tries his best to help others, who gives without counting the cost."

Teacher Evaluation

A. Check the extent to which participation in the trial of these materials has stimulated or increased the following in you:

	Quite a bit	Some	Little or none
1. Awareness of the need for educators to encourage youngsters to begin thinking seriously about complexities and responsibilities relative to educational and career development.	1	2,3	4,5
2. Appreciation that classroom teachers, as well as guidance specialists, significantly can affect students' life goals and plans.	2	1,3	4,5
3. Awareness of opportunities within curriculum content areas for helping youngsters to gain insights into themselves and future career possibilities.	1,2	3,4,5	
4. Thinking about a variety of ways guidance content or experiences might be incorporated into the existing curriculum and organizational structure.	1,5	2,3	4
5. Focus upon students as total individuals, i.e., their feelings, attitudes, self-concepts, and values, as well as acquisition of intellectual skills and content.	3	1,2,5	4
6. Appreciation of the multiple needs of growing youngsters, i.e., developmental tasks facing boys and girls.		1,3	2,4,5
7. Active concern for the self-concepts of your students.	2,3	1,5	4
8. Understanding of the taxonomy of affective objectives.		5	1,2,3,4
9. Concern with the processes of thought (analyzing, interpreting, hypothesizing, reflecting, etc.) as well as its products (information, answers, understandings, etc.)		1,5	2,3,4

	Quite a bit	Some	Little or none
10. Appreciation of the problems of carrying out educational research in the schools.	1,2,3,5		4
11. Interest in research data about students in your classroom, school, or district.	1,5	2,3	4
12. Feeling that, in spite of difficulties encountered, participation in tryout of these materials has been a growth experience for you.	1,3	2,4,5	

B. Suppose you had an entire semester or school year during which you could apply these materials. Check the extent to which you feel you might be able to accomplish the following:

	LOW ACADEMIC STUDENTS			HIGH ACADEMIC STUDENTS		
	Quite a bit	Some	Little or none	Quite a bit	Some	Little or none
1. Utilize guidance content for vocabulary development.	1	2	3,4,5		1,2,4,5	3
2. Relate written language skills to guidance content.	1	2,3	4	1	2,3,4	
3. Integrate grammar and guidance content.	1		2,3,4	1	4	2,3
4. Relate guidance content to selections from literature.	1	2	3,4	1	2,4	3
5. Use questionnaire and writing assignments for a personal dialogue with students and as a means of getting to know them as individuals.	2	1,3,5	4	1,2,5	3	4
6. Get students involved in tabulating their own responses to questionnaire items and analyzing research data on themselves or other classroom groups.	5	1	2,3,4	1,5	3,4	2

C. Check the approximate amount of class time you were able to devote to tryout of the materials:

25% 3,4   50% 1,5   75% 2   100%____

D. Circle the numbers of curriculum sections to which your students were most responsive or that you feel are most appropriate for your grade level.

Grade____	I (4) Purposes of Education	II (3) Career Planning	III (2) Developmental Perspective	IV (1,2) Self-Concept	V (1,3) Occupations	VI (5) Decision-making and Values

E. Check the extent to which you felt comfortable with the following:

	Very	Quite	Somewhat	Slightly	Not at all
1. Graph reading and interpretation.	5	1,3			2
2. Encouraging youngsters toward an objective appraisal of self.	1	3,5	2		
3. Scientific approach which characterizes many of the lessons.		1,5	2,3		
4. Having people observe students as they used the materials in your classroom.	1,3,5	2			
5. Having students work in small groups.	1			2	3,5
6. De-emphasis on teacher evaluation and/or grading.	1,5	2,3			
7. Open-endedness of much of the material, e.g., not knowing exactly what students may take from each lesson and allowing them to select and integrate what has meaning for them.	1			2,3,5	
8. Checking the evaluative sheets for evidence that behavioral objectives were being approached.			1	5	2,3

F. The following have been suggested as having created some difficulty in the tryout of these materials. Check the extent to which they presented obstacles for you.

	Quite a bit	Some	Little or none
1. Not being able to study the curriculum manual prior to the start of school.	1,2,3,4,5		
2. Too full a work load; limited time for preparation.	2,4	3,5	1
3. Difficult classroom group	2,3,5		1,4
4. Relatively limited academic ability of students	2,5	3	1,4
5 More boys than girls in classroom.	2		1,3,4,5
6. Students becoming saturated with both materials and approach due to highly compressed treatment period.	2,3,4,5	1	
7. Need and/or desire to structure lessons in your own way in order to make it your own.	1,2,4,5	3	
8. Being anxious about how what you were or were not doing might affect the outcome of the study.		3,5	1,2,4
9. Pressure from parents and/or students to spend more time on spelling, grammar, etc.	3	5	1,2,4
10. Conflict between trying the materials and meeting your own standards and expectancies for English.	3,4	2	1,5
11. Seminars being held after a full day of teaching.	4	2,3	1,5
12. Approach demonstrated in videotapes too foreign from your own teaching style.	4		1,3,5

	Quite a bit	Some	Little or none
13. Not having grades as a means of influencing students' attention and attitude toward the materials.			1,2,3,4,5
14. Other:	3,4		

G. Several suggestions were made for future use of the materials. Think in terms of use over an unlimited, unpressured time period and check the following items according to what your own preferences would be if you were trying out the first time the materials.

	Like very much	Like Somewhat	Neutral	Dislike Somewhat	Strongly Dislike
1. Using the existing materials as a starting point, have groups of teachers restructure them in their own way.		1,2		3,5	4
2. Have groups of teachers and counselors pool ideas on ways of initiating and adapting the lessons to characteristics of particular group of youngsters.	1	2,5		3	4
3. Have groups of teachers in your area of concentration pool ideas about integrating them with the content and skills of your field.		2,5		1	3,4
4. Work cooperatively with counselors on days these lessons are taught, perhaps alternating teaching and record-keeping.	1,2	5		3	4
5. Have counselors provide individual and group counseling for students as follow-up to classroom experiences with curriculum of this sort.	1	5	2,3		4
6. Eliminate some of the lessons and graphs and fully develop those which are retained with greater opportunity for expression of feeling and aesthetic-artistic experiences.			1,2,3		4

	Like very much	Like Somewhat	Neutral	Dislike Somewhat	Strongly Dislike
7. Have someone come into your classroom to demonstrate use of the materials.		5	2	1,3	4
8. Observe other classes using the materials as a means of getting ideas regarding their use.		1,2,5		3	4
9. Use videotaped demonstrations of key lessons as a basis for discussing variations in approach and student responsiveness to them.		1	2	3,5	4
10. Use videotape to compare how different teachers might conduct the same lesson.		1	2	3,5	4
11. Have materials in booklets, from which questionnaires could be detached for ongoing research purposes and addition to counselors' records.	1	2		3	4,5
12. Instead of building continuously and gradually upward toward higher levels of affective objectives, vary the organizational structure with discontinuous experiences which demand more abrupt reorganization on the part of the learner.		1,3	2		4
13. Other:					

H. Comments about potential use of materials of this sort, ways of using them, when and where you feel they might be most effectively used, suggested modifications, etc.

APPENDIX B: TEACHER SEMINAR GUIDE SHEETS

One assumption underlying recommendations for use of the curriculum materials is that they can be adapted up or down for the ability levels of students with whom they are used. The following guides for the six sections of the curriculum materials include modifications in the direction of greater simplicity which were used along with the more detailed instructions in the manual. Teachers further adapted the lessons with examples and presentations which reflected both their own personalities and the needs of the particular students with whom they dealt, but these guides provide some perspective of content organization.

Each section guide was given to teachers, along with teacher evaluative sheets and student work sheets for the section which followed, at each of the six seminars periodically held during the treatment period.

I. Youngsters' Perspective of Purposes of Education and Key Problems Facing Them

(Approximately September 11 - September 15)

1.1 Discuss and list problems. Students rank by perceived importance. Easier to omit group summary sheet of rank ordering by sex.

1.2 Omit class data sheet, IMPORTANCE OF PROBLEMS FACING YOUNG PEOPLE. Easier just to prepare a list for two sexes on basis of frequency tabulation and discuss any differences in kinds of problems perceived as important by boys and girls.
Questionnaire, STUDENT INTEREST IN EDUCATIONAL AND CAREER PLANNING.

1.3 Students write about purposes they want education to serve.

2.1 Distribute student checklist, IMPORTANCE OF EDUCATIONAL PURPOSES, prepared from papers written previous day. Discuss hunches about sex differences in response to checklist.

2.2
2.3
3.1 Omit small group activities. Simply tabulate student responses, discuss accuracy of their thinking, and elicit their explanations of findings.

3.2 Complete questionnaire, PURPOSES OF EDUCATION, then make predictions about how others might have responded. Describe research study. Compare own responses and predictions with research data. Interpret findings for two sexes and four grade levels.

II. Career Planning

(Approximately September 18 - September 25)

Major goals:

(1) Develop a research orientation; try to get them involved in viewing themselves relative to others near their age and impressed with their looking at real research data.

(2) Develop ease in reading graphs. May need to review briefly percentages. This might be most meaningful when you give them 1.3--actually convert a few to percentages, using number of tallies divided by number of boys or girls or total class enrollment.

(3) Provide small group interaction. Suggest you organize groups on basis of those who might work best together, perhaps by choice, whatever method you feel is best.

1.1, 1.2 (May take 2 periods; can extend into first part of 1.3)	Questionnaire, STATUS OF CAREER PLANNING Emphasize adult research being shared with them. Graphs--either opaque projector or in pairs. Individual student comment sheets are omitted. Group analysis.
1.3	Analysis (by pairs) of own group's responses to questionnaire. Teachers tabulate responses and Xerox for handout. Put questions on board. Discuss conclusions with total group. (You may convert to percentages if you wish.)
2.1	CURRENT CAREER CHOICES, on which all Item 4 responses have been listed (separated by sex, and number choosing each career). Read OCCUPATIONAL CLASSIFICATION CODE aloud, relate to other classification codes they know. Add 9.0, Miscellaneous. Have them classify the group's occupations, then discuss. Get them to develop their own classification system.
2.2	OCCUPATIONAL FIELDS STUDENTS CHOOSE--Compare own choices with research data. Individual, then group analysis sheets. Reports to group and general summary.
2.3	PERSPECTIVE ON PAST CAREER INTERESTS Writing and sharing.

III. Developmental Perspective on Self

(Approximately September 26 - October 2)

Major goals:

(1) Increase students' awareness of influences on the development of their own career interests (e.g., people and events).

(2) Gather questionnaire data on individual students.

(3) Provide opportunity for students to hypothesize about sex differences in interest patterns and the relationship between interests and broad occupational fields.

(4) Provide opportunity for students to interact in small groups with others of similar interests (for greater enjoyment and self-expression).

1.1 Start with students' perceptions of causes of individual differences in career interests--lists.

1.2 Discussion of graphs (people and factors influencing career interests).

1.3 Questionnaire, CAREER INFLUENCES AND INTERESTS. Essay question can extend to back of sheet.

(It may be easier for you to follow the questionnaire with the graphs for III, 1.2, since it would give greater meaning to the graph categories and extend their own thinking about themselves. *Important to emphasize sex differences on these two graphs.)

2.1
2.2
2.3 Arrange small group interaction as you think best for enjoyment and self-expression while doing analysis of graphs on interests recalled by students who choose the four broad fields. (These are numbers of students, not percentages, and show interesting sex differences.)

Probably it would be best to discuss the first graph showing sex differences in interests recalled by all four grade levels with the total group before starting small groups and also make predictions about the other four graphs.

Opportunities for skill development:

(1) Spelling in lists and essay; vocabulary development (influences, interests, factors, words on questionnaire).

(2) Paragraphing, punctuation, and sentence structure in essays. Write paragraph on an interest they enjoyed most.

(3) Select sentences from essays for group analysis or individual written exercises.

IV. Self-concept

(Approximately October 3 - October 12)

Major goals:

(1) Help students appreciate importance of self-concept and the reality of human uniqueness.

(2) Help them to develop some objectivity about self and increase their range of self-perceptions (both negative and positive).

(3) Help them to understand that situations can influence how we feel about ourselves.

(4) Encourage them to move toward valuing particular characteristics.

1.1 As a brief introduction, suggest you extract basic ideas from lesson guide and Super's sheet, SELF-CONCEPT, and communicate these in your own words, rather than have students read them. You might be able to draw meaningful examples from students (e.g., influences of models on them, experiences which changed their perceptions, etc.) Perhaps a chalk sketch would help.

Sentence completion might be "It is important to think about how we feel about ourselves because . . ." (rather than "self-concept").

1.2 Suggest you omit and simply discuss briefly the ideas they write in above sentence completions, emphasizing those most affecting career exploration.

1.3 Suggest you explain writing on The Kind of Person I Am to (1) help them better understand themselves and (2) help you understand them as individuals. The sentence in 3.1 "I am the kind of person who . . ." can be used here and omitted later.

2.1 You might have them think of situations in which they may feel differently about themselves (P.E., math or music classes, at a party, etc.) to introduce adjective pairs for four situations. Use group averages only to compare their checks with same grade level (how alike or different they are) and omit sex differences and grade level change. Give opportunity to compare checks with friends (if they like).

2.2 Item (1), CLASSROOM SATISFACTIONS, is important questionnaire item. Omit class discussion of graph, WHAT STUDENTS FEEL IS MOST SATISFYING IN SCHOOL; just have them compare themselves individually. The four hypothetical cases might be done as a total group activity or in four sub-groups. Each sub-group also might make a list for one (column) of the four situations on FACTORS INFLUENCING SELF-CONCEPTS, then report to total group. (This might provide opportunity for expressing negative feelings with peers and be a short, specific task for group work.)

2.3 Write on Times I Have Felt Best About Myself. Share if they wish to.

3.1 Omit if included in 1.3.

3.2 Suggest using sentence completion "I would like to become the kind of person who . . ." to start a paragraph and omit comparison of self-perception and ideal.

3.3 Suggest students cross out INTEND TO on heading of CHARACTERISTICS I INTEND TO POSSESS, then adjectives might be read aloud, defined in total group, and students could circle only those which they feel best describe them as this is done (but not in red pencil). They could write down the adjectives they value most on VALUED CHARACTERISTICS and explain why. Try to get some commitment in questionnaire at the end.

IV. Self-concept

Duplicate, Prepared by Counselor

(Approximately October 4 - October 13)

Reference

1.1 Page 25 Understanding self-concept

Teacher: Leads discussion of self-concept.
Students: Use Reading Sheet IV 1.1.
Write about self-concept beginning with
"It is important to think about self-concept because..."

1.2 Page 26 Get students to think about characteristics important in career planning

Teacher: Leads discussion, emphasis on needing to know what students' ideas might be in this area-- these may come out abilities, interest, values, background, expectations, etc.
Students: List characteristics they feel are important. At the end of the list write a statement indicating degree of interest in further exploring self-concept.
Teacher: Lists on the board characteristics listed by students. Compile one list including the characteristics listed above. Emphasis on similarities between students' list and yours. Discuss meaning of words used as necessary.

1.3 Page 27 Getting students to personalize self-concept

Teacher: Gives instructions for student paper "The Kind of Person I Am".
Students: Write paper.

2.1 Pages 27 & 28 Comparison with others and relieve defensiveness that may result from previous activity

Teacher: Distribute and explain IV, 2.1.

Students: Check these two sheets, Teacher distributes comparison--students compare their checks with others the same age.

Note: Comparison could be done as a discussion.

Students: Write their conclusions on the back
1) what sex differences
2) what change in feelings with age

2.2 Pages 28, 29 & 30 Continue to develop interest in self-concept

Teacher: Explain and distribute Classroom Satisfaction, IV 2.2.

Students: Check IV, 2.2.

Teacher: Leads discussion of situations--as students check or after they check.
Emphasis on why people feel differently about themselves.

Teacher: Distributes and discusses graphs with students--IV, 2.2.

Teacher: Distributes and explains "Factors Influencing Self-concept." Allow time for student listing. Summarize and generalize from these.
Summary should emphasize role, status, needs, expectancies, security, skill.

2.3 Page 30 Focus on positive experiences

Teacher: Gives directions for paper "Times I Have Felt Best About Myself."

Students: Write paper.

3.1 Pages 30 & 31 Move into this quickly to get most spontaneous reaction possible

3.2 Page 31

Teacher: Direct students to complete sentence, "I am the kind of person who...."
Give 2 minutes for completion--a short time at any rate.
Direct students to focus on their answer:
1) is it a good point
2) do you like it as part of you
3) will it be important in your career choice?

Teacher: Direct students to complete Sentence 2 -
"I would like to become the kind of person who........"
Lead discussion comparing these two emphases on clarification of student thinking, relationship to personality characteristics and their ability to exercise choice and to have control over what happens to them in their lives.

3.3 Pages 32 & 33 Students are being asked to commit themselves to some goals

Teacher: Distribute and explain work sheet, "Characteristics I Intend to Possess" IV,3.3(a).

Students: Red circle most important.
Blue circle next most important--no circle on those they would not like to have.

Teacher: Distribute and explain "Valued Characteristics," IV 3.3(b). Discuss.

Students: Complete IV, 3.3(b).

V. Occupations

(Approximately October 16 - October 30)

A. Relationship of Personality Characteristics to Occupations

Reference

1.1 Page 35 Becoming aware of relationship between personality and work

Teacher: Distributes V-A, 1.1, PERCEIVED RELATIONSHIP OF PERSONALITY CHARACTERISTICS TO SELECTED OCCUPATIONS and discusses occupations listed at left, drawing from students the kind of work involved in each one. Allow time for students to write what they can after each explanation.

Students: Write "What they think people doing each kind of work would be like."

Teacher: Uses V-A, 1.2, RELATIONSHIP OF PERSONALITY CHARACTERISTICS TO SELECTED OCCUPATIONS AS INDICATED BY RESEARCH for own reference only. Shares with students as many of findings as possible as they write on occupations. Asks for show of hands whenever research has supported student thinking.

1.3 Page 36 Focus on own tentative choice and characteristics

Teacher: Distributes questionnaire, V-A, 1.2, TENTATIVE CAREER CHOICE AND RELATED PERSONALITY CHARACTERISTICS, clarifies 'tentative,' goes over vocabulary in questionnaire, encourages further thought.

Students: Complete questionnaire.

2.2 Page 38 Comparison of own responses with research graphs

Teacher: Distributes graphs, V-A, 2.2, OCCUPATIONS STUDENTS FEEL WOULD BE BEST FOR THEM, and asks students to locate the field they felt would be best for them and compare with others of own sex and grade level. Leads discussion of graph, CHARACTERISTICS STUDENTS SEE IN THEMSELVES THAT THEY FEEL MAKE JOBS BEST FOR THEM, involving particularly students who made tentative choices in the four fields.

Students: Compare own responses with research data and interpret findings.

2.1 Page 37 Reaction to a theory of vocational decision-making

Teacher: Uses V-A, 2.1, A THEORY OF VOCATIONAL CHOICE, for own reference only. Explains main ideas related to the five environments and orientations and asks for student evaluation of "whether or not the theory makes sense to them or seems to fit" them.

Students: Listen and give common-sense reaction to ideas, especially about the extent to which the five orientations seem to fit them.

2.3 Page 39 Encourage expression of desire rather than expectancy

Teacher: Distributes V-A, 2.3, WHAT WORK I WOULD LIKE TO BE DOING TEN YEARS FROM NOW, encourages free choice and imagination to emphasize enjoyment.

Students: Write paper and check questionnaire item on enjoyment.

B. Occupational Stereotypes

1.1 Page 40 Assessing own occupational stereotypes

Teacher: Explains "appropriateness" of occupations for boys and girls. Distributes questionnaire V-B,1.1, APPROPRIATE OCCUPATIONS FOR BOYS AND GIRLS. Uses list of occupations for discussion of kind of work involved, drawing out student perceptions of skills and duties.

Students: Check one of three columns after each occupation is discussed.

1.2 Page 40 Looking at evidence of occupational stereotypes at their age

Teacher: Distribute graphs, V-B, 1.2, OCCUPATIONS STUDENTS FEEL ARE RIGHT FOR BOYS AND GIRLS, encourages students to compare own responses with graphs and interpret findings.

Students: Compare own checks with research graphs and interpret findings.

Teacher: Distributes questionnaire on interest in occupational stereotypes, explains vocabulary and instructions.

Students: Complete questionnaire with appropriate letter.

1.3 Page 41 Thinking about reasons for occupational stereotypes

Teacher: Have students list (or just discuss) why some jobs are right only for men or women. Explain "stereotype," and using V-B, 2.1, SOME STUDIES IN SEX DIFFERENCES, for own reference only, communicate as many of the findings as possible.

Students: Students write reasons for stereotypes and listen to results of research on sex differences.

2.2 Page 42 Small group discussions

Teacher: Organizes class into small groups and poses question of whether or not boys and girls have equal opportunity to pursue careers of their choice. Encourages students to think about themselves.

Students: Discuss question in small groups and report conclusions to class.

2.3 Page 43 Reacting to occupational stereotypes with humor

Teacher: Distributes drawing paper and asks students to draw cartoons or caricatures of strongly stereotyped occupations for both sexes, encouraging humor.

Students: Draw cartoons or caricatures. Share with group if they want to.

C. Requirements and Opportunities Related to Current Interests

1.1 Page 44 Getting students' perceptions of training and job outlook

Teacher: Explains importance of knowing about training and job opportunity. Distributes V-C, 1.1, PERCEPTIONS OF TRAINING AND JOB OUTLOOK FOR SELECTED OCCUPATIONS. Reviews list of occupations and gives instructions.

Students: Share their thinking with total group regarding each occupation.

1.2 Page 45 (Omit, unless counselors would like to bring in information specific to their tentative choices, perhaps as resource people meeting with small groups.)
1.3

2.1 Page 46 Writing about their tentative choice

Teacher: (Omit comparison.) Assign paragraph on requirements and outlook for tentative choice.
Students: Write as complete a paragraph as possible about their career interest.

2.2 Page 46 Examining occupational information

Teacher: (Omit if occupational information is unavailable.) Distributes booklets, etc.; encourages note-taking.
Students: Examine materials, perhaps by pairs of students who have similar interests.

2.3 Page 47 Unusual, imaginative ways to get training

Teacher: Assigns paragraph or story on "The way I became trained for ____________ was . . ." Encourages humor and imagination.
Students: Write paragraph or story. Share orally with group (or teacher reads aloud).
Teacher: Distributes V-C, 2.3, evaluative questionnaire.
Students: Check questionnaire.

VI. Planning for Career Exploration

(Approximately October 30 - November 10)

A. Locus of Responsibility for Planning and Decision-Making

Reference

1.1 Page 49 Attitudes toward career planning

Teacher: Distributes VI-A, 1.1, ATTITUDES TOWARD EDUCATIONAL PLANNING AND GUIDANCE. Reads aloud each item as students complete questionnaire.
Students: Complete questionnaire.

1.2 1.3 Page 50 Comparison of responses with graphs

Teacher: Projects or distributes most important graphs and leads discussion of them. (Omit written assignment, 1.3.) Draw out students' feelings and attitudes toward adult influence on career development. More graphs might be covered in less time if small groups are organized to analyze (1) times when students should explore and decide, (2) what students plan to do, (3) parents' expectancies, and (4) amount of parental involvement in decision-making. Save graph on guidance activities students would like until 2.2. Urge students to compare own checks with research data.

Students: Express ideas and feelings as they analyze and interpret graphs in group situation.

2.1 Page 51 Decision-making and vocational guidance activities

Teacher: Uses VI-A, 2.1, DEFINITION OF DECISION-MAKING as reference material only. Elicits from students what process of decision-making means to them, clarifies meaning of various guidance activities, and leads interpretation of graphs, GUIDANCE ACTIVITIES STUDENTS WOULD MOST LIKE.

Students: Define and describe decision-making process, discuss meaning of guidance activities, analyze and interpret graphs on student preferences.

2.2 2.3 Pages 51 & 52 Ideal vocational guidance program

Teacher: (Omit listing of ideas for guidance activities.) Organizes students into small groups to develop new and unusual guidance activities.

Students: Develop innovative programs in small groups and report to total group.

3.1 Pages 53 & 54 Involvement in decision-making

3.2 3.3 (Omit because of limited time and duplication in post-testing.)

B. Clarification of Values and Goals in Decision-Making

1.1 Pages 55 Meaning of values
1.2 & 56
1.3

Teacher: Helps students define 'value' from lists of things they value and expands through discussion their concept of value relative to vocational decision-making. Uses VI-B, NOTES ON VALUES, only for own reference.

Students: List things they value and discuss how values can influence vocational choices.

2.1 Pages 57 Success and failure
2.2 & 58

Teacher: Distributes questionnaire VI-B, 2.1, WHAT I VALUE. Instructs students to draw lines connecting checks to form profile of their own values. Has students compare profiles with those of students near them, as in 4.1, page 60. (Omit frequency tabulation if time is limited.) Writes on board students' predictions of sex and parent-child differences in values and their reasoning.

Students: Complete questionnaires, compare own unique profile with those of neighbors, and offer hypotheses-predictions about research data.

2.3 Page 58 Graph analysis and evaluation
3.3 Page 60

Teacher: Distributes graphs, VI-B, 2.3, WHAT SUCCESS (AND FAILURE) MEAN TO STUDENTS (AND PARENTS), and organizes students into groups of three for interpretation (as in 3.3). Directs students toward expression of feelings about success and failure, e.g., "How do you feel personally about these findings? What other values do you think are most important and why?"

Students: Analyze graphs in small groups and evaluate findings in terms of own attitudes and feelings about success and failure and what values are most important.

3.1 Pages 59 Omit.
3.2 & 60

4.1 Page 61 (Combined earlier with 2.1 and 2.2.)

4.2 Pages 62 & 63 Individual pictorial-symbolic value illustration

Teacher: Assigns illustration to be completed at home, using varied materials and media. Share with group only if students are willing.

Students: Create original and unique illustration of own value system.

5.2 Page 65 Problems and pitfalls in career choice

Teacher: Elicit from students what they perceive as pitfalls and problems related to career choice. Using VI-C, 5.2, POINTS TO CONSIDER, discuss and expand their perceptions. Emphasize importance of understanding and feeling good about themselves.

Students: Discuss importance of serious attention to their futures and vocational choice as an implementation of their own self-concepts.

APPENDIX C: VIDEO-VIEWING GUIDES FOR DEMONSTRATION LESSONS

Six exemplary lessons were video taped for use in teacher seminars. The following guides for viewing these tapes were developed to help teachers focus upon behavioral objectives involving feelings, attitudes, and intellectual processes, as well as the content to be covered. They provide more detailed examples of the kinds of classroom experiences included in the curriculum materials.

I, 3.2 Purposes of Education

Desired Behaviors	Sequence of Activities
	Introduction Purposes they attribute to education of vital importance to them.
Do students seem to ascribe value to education? Is career development among values that are expressed?	Discussion of purposes they want education to serve for them.
	Describe research data sample and questionnaire.
	Distribute questionnaire.
Do they understand vocabulary and directions?	Compare purposes they had given with those on questionnaire; clarify vocabulary.
How decisive do they seem to be in their own ranking?	Go over directions for ranking; have students rank purposes on questionnaire.
Do they offer hunches or hypotheses? Do they seem to be expressing their personal views with conviction?	Discuss hunches or hypotheses they may have about how most students would rank them (at same and different ages), how adults would rank them, etc.
Do they seem curious about looking at the graphs? Are they eager to compare their rankings and hunches with the research data?	Compare their thinking with research data; analyze graphs.
Do they seem to be expressing genuine conviction on their own?	If time, encourage them to criticize the values on the questionnaire.

II, 1.1, 1.2, Status of Career Planning

Do they understand concepts of career and vocation? Do they pay attention to teacher introduction?	Introduction Meanings of 'career' and 'vocation.' Importance of problem to them. Research interest. Description of questionnaire.

Desired Behaviors	Sequence of Activities
Do they understand instructions? Do they fill out the questionnaire?	Distribute questionnaires. Go over each item to make sure they understand.
Do they seem to be aware that their career planning is at some stage of development?	Have them complete questionnaire and keep for comparison with research data.
Do they appear interested in original research study?	Give brief history of research study Meaning of 'research.' Time, sample, procedures. Conversion of tables to graphs. Description of graphs.
Do they show interest in exploring graphs prior to group analysis?	Distribution of graphs and individual exploration prior to group analysis.
Do they appear to understand graph structure?	Clarification of how line graphs are read, percentage, grade separations.
Do they attend to these questions?	Focal questions to be kept in mind, i.e., attitude change over time, sex differences, comparison of own responses with others near own age.
Are they willing to give attention to the data, to analyze, interpret, and reflect about possible explanations?	Sequential analysis of graphs, e.g., noting trends, differences, similarities, and offering hypotheses.
Do they appear to be thinking about age and sex differences in career planning?	
Do they appear to be reflecting about their own responses relative to others their age?	Personal response to data (if time) and summary of what were characteristic responses for those near near their own age.

III, 2.1, 2.2, 2.3, Early Interests and Career Choice

Introduction
Kinds of interests studied.

Desired Behaviors	Sequence of Activities
Do they respond when questioned? Do they volunteer ideas or hypotheses? Are they willing to risk predictions? Do they appear to be enjoying the discussion?	Large group discussion Development of interests. Sex differences in interest patterns. Relationship of interests to career preferences. Predictions and hypotheses.
Are they compliant and willing to participate?	Explain procedures for small group discussions and basis for their assignment to seating groups (6 groups of 5 students each). Students decide on group leader and recorder.
Do they appear to be eager or enthusiastic about working in small groups? Do individuals volunteer to help in group functioning?	Cautions about graph structure. Reminder to compare own interests with research data.
	Small group analysis. Recorder and leader for each group.
Do individuals initiate comments or questions? Do individuals offer interpretations or hypotheses? Do students appear to enjoy interacting with peers? Do they smile or appear happy? Are the effective group members?	
Do they show increasing responsiveness and satisfaction as they work through the data?	Hand in group summaries.

IV, 2.1, Self-Concept

Do students pay attention?	Introduction Relationship of interests to self. Relationship of self to career development. Variation in feelings about self from situation to situation. Research data to illustrate.

Desired Behaviors	Sequence of Activities
	Distribute 2 blank sheets (adjective pairs in four situations).
Do students understand the instructions?	Explain procedure of checking only one space for each pair.
Do they seem to understand the concept of 'average?'	Review concept of 'average.'
	Explain research data (same sheets with averages for 4 grade levels entered for individual comparison).
Do they check all adjective pairs? Do they raise hands for data sheets and begin comparison of their responses with those of others?	Have students check all items and raise hand for data sheets when completed, focusing upon sex and age differences in four situations and how their responses compare with others.
Do they hold their sheets up to light against sheets with group means for analysis? Do they write conclusions on back as instructed?	Instruct students to write on the back of their own sheets any conclusions they can draw or interpretations they can make, especially about how their checks compare with others.
Do they compare their checks with their neighbors voluntarily? Do they reveal any appreciation of their own uniqueness or likeness to others?	Allow students who desire to do so to compare their responses before handing in papers.

V-B, 1.3, 2.1, Occupational Stereotypes

	Introduction Interest in students' attitudes toward appropriate careers for men and women.
Do they appear to be attentive to the subject?	Discussion of occupations they feel are either masculine or feminine.
Are they able to list reasons? Is there evidence of thought being given to the subject? Are they able to think in terms of causes?	Have students list reasons for occupational stereotypes. Collect papers, read aloud, and have students explain.

Desired Behaviors	Sequence of Activities
Is there evidence of unusual or divergent thinking?	
	Develop concept of 'stereotype.'
Are they attentive to what is read? Do they listen as they have been instructed to do?	Instruct them to listen to SOME STUDIES IN SEX DIFFERENCES to gain further information.
Do they volunteer and participate actively in the discussion?	If time, discuss their reactions to material presented, extent to which they feel boys and girls have equal opportunity to pursue careers of their choice, how occupational stereotypes might affect them as individuals in their future lives, etc.

VI-A, 2.2, 2.3, Gudiance Practices

Do they appear to understand the process of decision-making?	Introduction Definition of decision-making. Importance of career decisions and role of education.
Do they appear interested and responsive? Do they offer ideas?	Discussion of kinds of help boys and girls get, what the school does to assist students in career development, and how effective they feel the program is.
Do they seem willing to do independent, original thinking? Do they list ideas?	Listing of original ideas for career assistance.
Do they seem interested in communicating with others in their group? Do they seem to enjoy interacting?	Small group discussions (2 or 3) to develop ideal vocational guidance program.
Do they come up with workable plans as a result of their discussion?	Reports to total group.

APPENDIX D: INSTRUMENTS

Copies of instruments used in pre-and post-testing, in order of administration, follow:

Semantic Differential
Essay: My Future Career
Written Interview: My Plans
Behavioral Checklist (post-test only)
Counselor Contact Record (post-test only)

PALO ALTO UNIFIED SCHOOL DISTRICT
GUIDANCE DEPARTMENT

INSTRUCTIONS

On the following pages are questions which will let you in one of the spaces express how you feel about different things simply by placing a check (✓) between a pair of adjectives. Suppose you had checked adjective pairs for the example given below to show how you feel about EDUCATIONAL TELEVISION. You would feel that EDUCATIONAL TELEVISION is *slightly* good, *somewhat* valuable, and you're not sure about how forceful it is.

EDUCATIONAL TELEVISION

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
good			✓					bad
worthless						✓		valuable
forceful				✓				unforceful

A number of things for you to rate in this way are given on the next few pages. Please place your check on the line (✓), not over the dots.

Place only one check for each pair of adjectives. Don't skip any.

Work quickly through each page. Do not spend a lot of time making up your mind. Put down your first reactions for each pair of adjectives--even though the adjective may seem somewhat unusual to you--and go right on to the next pair.

GETTING AN EDUCATION

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
bad								good
persistent								nonpersistent
active								passive
worthless								valuable
successful								unsuccessful
safe								dangerous
insecure								confident
happy								unhappy
dumb								intelligent
curious								incurious
liked								disliked
cautious								daring
independent								dependent
unimaginative								imaginative

MYSELF

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
bad								good
persistent								nonpersistent
active								passive
worthless								valuable
successful								unsuccessful
safe								dangerous
insecure								confident
happy								unhappy
dumb								intelligent
curious								incurious
liked								disliked
cautious								daring
independent								dependent
unimaginative								imaginative

MY FUTURE

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
bad								good
persistent								nonpersistent
active								passive
worthless								valuable
successful								unsuccessful
safe								dangerous
insecure								confident
happy								unhappy
dumb								intelligent
curious								incurious
liked								disliked
cautious								daring
independent								dependent
unimaginative								imaginative

THE KIND OF PERSON I'D LIKE TO BE

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
bad								good
persistent								nonpersistent
active								passive
worthless								valuable
successful								unsuccessful
safe								dangerous
insecure								confident
happy								unhappy
dumb								intelligent
curious								incurious
liked								disliked
cautious								daring
independent								dependent
unimaginative								imaginative

MY FUTURE WORK

	Very	Somewhat	Slightly	Neither or don't know	Slightly	Somewhat	Very	
interesting								boring
strong								weak
unpleasant								pleasant
fast								slow
bad								good
persistent								nonpersistent
active								passive
worthless								valuable
successful								unsuccessful
safe								dangerous
insecure								confident
happy								unhappy
dumb								intelligent
curious								incurious
liked								disliked
cautious								daring
independent								dependent
unimaginative								imaginative

Essay Topic: My Future Career: Interests, Personal Characteristics, Past Influences, Major Goal and Plans

Use the following as a guide for your essay. Simply tell in your own words how you feel about each of the questions given below. Before you begin writing, please think about each question. As you do this it may be helpful to list briefly or jot down in the blank spaces a few words to describe whatever ideas come to your mind. Then when you begin writing your essay, these brief notes can remind you of all the thoughts you had. Your ideas on each question can become a separate paragraph, and they should be written in the order in which they are given. Remember in your essay to describe all your thoughts and feelings in complete sentences.

Questions to think about:

1. What kinds of career interests do you have now? What career possibilities do you think you may want to explore in the future? (Start your paper with your ideas on these questions.)

2. How do these career interests fit the kind of person you are? (Think about what you are like, what interests you, and the kind of person who would be successful in the different kinds of work you might like to do.)

3. Why do you think you have developed these career interests and have become the kind of person you are? (Think about people you have known in the past, things that have happened to you, and opportunities you have had to learn about all your present career interests.)

4. Which vocation out of all those you have mentioned do you feel you will be most likely to pursue? Why is this your first choice? (Describe your main interest as completely as possible.)

5. How realistic do you feel this first career choice is for you? For example, if you wanted to become a math teacher and you were failing in you math classes, this probably would not be a very realistic goal for you. (Think about and describe how well you do in school, what you can do out of school, the kind of person you are, training and experience you have had or will be able to have in the future, etc.)

6. As a final step in thinking about the vocation you described in the essay as your first career choice, list (in order) the specific steps you feel you will take next to prepare yourself for this career.

MY PLANS

(1) In your essay which career did you describe as your first choice of a career goal? ______________________

(2) How likely do you feel it is that you will reach this career goal or that you will do the kind of work you most want to do?

100% chance ____________
75% chance ____________
50% chance ____________
25% chance ____________
No chance ____________

(3) How much effort do you intend to put forth on the steps you listed to prepare yourself for this vocation?

All my effort ______
Considerable effort ______
Some effort ______
Very little effort ______
No effort ______

(4) You may or may not reach the career goal you wrote about in your essay. What kinds of things do you feel might influence whether or not you actually do this work that interests you most right now? In other words, what might help you to become or keep you from becoming what you think you might like to be?

(5) Suppose it were impossible for you to become your first career choice. What would be your second career choice? ______________________________

(6) List below the specific steps you would take to reach this second career.

Think about the following questions in relation to what you have done SINCE SCHOOL STARTED THIS YEAR. Check (✓) one blank space in each column which most closely fits your behavior.

(1) How many times have you tried on your own to get written information about a career that interests you? (This includes job or training requirements, salaries, job demand, etc.)

	From either the school or public library	From the counselor's office	From newspapers, magazines, pamphlets, etc.
None	________	________	________
Once	________	________	________
Two times	________	________	________
Three times	________	________	________
More than three times	________	________	________

(2) How many times have you talked with someone to find out more about the kind of work he or she is doing?

	With parents or other members of your family	With teachers, counselor, principal etc.	With neighbors, people who visit your home, parents of friends, etc.
None	________	________	________
Once	________	________	________
Two times	________	________	________
Three times	________	________	________
More than three times	________	________	________

(3) How many times have you tried to find out on your own about opportunities for special training (for example, beauty school, real estate courses, secretarial schools, electronics training, etc.)?

None	________
Once	________
Two times	________
Three times	________
More than three times	________

(4) How many times have you tried to find out on your own about college entrance requirements?

None ____
Once ____
Two times ____
Three times ____
More than three times ____

(5) How many times have you visited places where work actually is being done in order to find out firsthand what the work really is like (for example, a business, shop, office, etc.)?

None ____
Once ____
Two times ____
Three times ____
More than three times ____

(6) How many times have you examined closely or purchased equipment or materials connected with some kind of work in order to find out whether or not such work might interest you?

None ____
Once ____
Two times ____
Three times ____
More than three times ____

(7) How likely do you feel it is that you will look for a part-time or summer job during the coming year in order to learn more about some kind of work that interests you (rather than just to make money)?

Very likely ____
Quite likely ____
Somewhat likely ____
Quite unlikely ____
Very unlikely ____

Please record all counselor contacts initiated by C-lane students between the start of school and mid-November. Check (✓) or write in the nature of the contact and record the date on which it occurred.

Student's Name ______________________ School (Circle): Wilbur Jordan

Sex (Circle): Boy Girl Grade (Circle): 7 8 9

PURPOSE OF CONTACT	DATES										
Seeking occupational information											
Seeking test information											
Seeking information about high school programs											
Seeking information about college programs or entrance requirements											
Seeking help on personal problems (social, emotional, physical)											
Seeking help with family problems											
Seeking help with financial problems											
Desire to change electives											
Desire to change classes due to conflict with teachers											
Desire to change classes to be with friends											
Desire to change classes because work is too difficult											
Desire to change classes because work is too easy											
Other reasons:											

APPENDIX E: SCORING MANUAL FOR CONTENT ANALYSIS OF ESSAYS

I. Procedures for Rating Specificity of Career Goal

II. Procedures for Rating Specificity of Plans for Achieving Career Goal

III. Procedures for Categorizing Verbalized Self-Perception

I. PROCEDURES FOR RATING SPECIFICITY OF CAREER GOAL

Specificity of first choice career goal (or second choice career goal, answer to question #5 on "My Plans") should be determined according to the five point specificity scale described below. Essay should be read through the first time to identify career goals (answer to question #1 on essay guide) and more specifically to identify first choice career goal (answer to question #4 on essay guide). All goals should be underscored and marked "goals" on essay, and first choice career goal should be circled. The score assigned should be recorded at top of essay.

5 Point Specificity Scale

1 --- NO MENTION: indicates little or no thought regarding possible future career.

2 --- GENERAL: indicates interest in a broad field without clear identification of specific occupational role or skill.

3 --- SOMEWHAT SPECIFIC: indicates 1) interest in a specific occupational role involving single skill area or area of knowledge; or 2) interest in working for specific place or type of place of employment or employing organization; or 3) interest in a broad field which is delimited by detail other than specific role.

4 --- HIGHLY SPECIFIC: indicates interest in specific occupation defined by at least one skill or area of knowledge and one of the following:

1) one other skill or area of knowledge;
2) an indication of aspired for achievement level within occupational area;
3) an indication of interest in working for specific place or type of place of employment or specific employing organization;
4) a specific detail narrowly delimiting occupational role.

5 --- HIGHLY SPECIALIZED: indicates interest in specific occupation defined by at least one skill or area of knowledge and a combination of two or more of the following:

1) another skill or area of knowledge (or several other skills or areas of knowledge, each of which should be given credit);
2) a specific detail narrowly delimiting occupational role;
3) an indication of aspired for achievement level within occupational area;
4) an indication of interest in working for specific place or type of place of employment or specific employing organization.

EXAMPLES OF CAREER GOAL FOR EACH LEVEL OF SPECIFICITY

1 --- NO MENTION: indicates little or no thought regarding possible future career.

The following examples should be given a rating of (1):

Blank space after questions #1 and #4 on the "guide" for the essay, and no mention in essay.

I don't know.
A good job like a doctor or a lawyer or something like that.
I haven't decided yet.
I'm not sure.
I'll decide this in the future.

Note: Credit should be given for any response indicating some thought regarding possible future career--even though student may also indicate indecision.

The following examples should not be assigned a rating of (1), but should be given the ratings indicated in the parentheses to the right of each statement:

I'm not sure, but I think right now I'd like to go into electronics. (2)
I don't think this is the time for me to decide, but maybe in the future I'd like to be a doctor. (3)
I want to work with animals. (2)
Maybe I'd like to be a pilot. (3)
I haven't decided yet, but I'm considering nursing, teaching, or modeling. (3)

2 --- GENERAL: indicates interest in a broad field without clear identification of specific occupational role or skill.

The following examples should be given a rating of (2):

I think I'd like to go into electronics.
I'd like to be in the airlines.

2 --- GENERAL: (Continued)

I want to work with animals.
I'm interested in chemistry.

or any of the following fields:

- physical sciences
- biological sciences
- science
- architecture
- business
- law
- government
- people
- sports
- recreation
- transportation
- airlines
- electronics
- mechanics
- computers
- physics
- chemistry
- animals
- medicine
- anthropology
- genetics
- construction
- buildings
- art
- music
- literature
- language
- communications
- photography
- beauty work
- fashion
- advertising
- insurance
- real estate
- finance
- money
- economics
- defense
- psychology
- education

3 --- SOMEWHAT SPECIFIC: indicates 1) interest in a specific occupational role involving single skill area or area of knowledge; or 2) interest in working for specific place or type of place of employment or employing organization; or 3) interest in a broad field which is delimited by detail other than specific role.

The following examples should be given a rating of (3):

- engineer
- electrician
- machinist
- mechanic
- pilot
- mathematician
- scientist
- statistician
- physicist
- chemist
- biologist
- veterinarian
- doctor
- nurse
- farmer
- anthropologist
- archeologist
- architect
- artist
- designer
- musician
- writer
- journalist
- reporter
- librarian
- seamstress
- dietician
- model
- cook
- baker
- butcher
- photographer
- beautician
- barber
- secretary
- grocer
- salesman
- financier
- economist
- mailman
- soldier
- sailor
- entertainer
- singer
- actor
- psychologist
- teacher
- historian
- explorer
- painter
- sculptor
- violinist
- carpenter
- bricklayer
- home economist
- housewife

3 --- SOMEWHAT SPECIFIC: (Continued)

in the Air Force, Army, Navy, Marines, Peace Corps, Red Cross, Civil Service

any of the following:

model or fashion model; stewardess or airline stewardess; contractor or building contractor; policeman or police officer; driver, or bus, truck, or car driver;

forest ranger
key punch operator
file clerk
sales clerk
postal clerk
gas station attendant
social worker
probation officer
football player
animal helper
data processor
public relations worker
hair stylist
lab technician
military man
recreation worker
computer programer

or any similar case where one of two words suggests no specific skill;

or

work for Tony's bike shop; for Pan Am.; at a nursery school.

4 --- HIGHLY SPECIFIC: indicates interest in specific occupation defined by at least one skill or area of knowledge and one of the following:

1) one other skill or area of knowledge;

2) an indication of aspired for achievement level within occupational area;

3) an indication of interest in working for specific place or type of place of employment or specific employing organization;

4) a specific detail narrowly delimiting occupational role.

The following examples should be given a rating of (4):

mechanical draftsman
technical writer
electrical assembler
dental assistant
racing car driver
automobile mechanic
nuclear physicist
surgical nurse

4 --- HIGHLY SPECIFIC: (Continued)

- medical secretary
- civil engineer
- interior decorator
- dress designer
- computer consultant
- business executive
- executive secretary
- sales manager
- math teacher
- school principal (principal)
- political specialist
- commercial air line pilot
- school bus driver
- car salesman
- officer in navy
- coach
- sports announcer
- television comedian
- baseball player: pitcher
- cattle rancher
- watch maker
- seaman on navy ship
- stock broker
- recreation director
- gas station owner

5 --- HIGHLY SPECIALIZED: indicates interest in specific occupation defined by at least one skill or area of knowledge and a combination of two or more of the following:

1) another skill or area of knowledge (or several other skills or areas of knowledge, each of which should be given credit);

2) a specific detail narrowly delimiting occupational role;

3) an indication of aspired for achievement level within occupational area;

4) an indication of interest in working for specific place or type of place of employment or specific employing organization.

The following examples should be given a rating of (5):

football player for NFL playing end;

I want to be an artist who paints, makes jewelry, and works with ceramic tile;

work at an aquarium and sell fish;

breed ponies from a particular island I know of;

music teacher in junior high school;

President of Savings & Loan bank;

play a 2-layer organ on TV.

II. PROCEDURES FOR RATING SPECIFICITY OF PLANS FOR ACHIEVING CAREER GOAL

Specificity of plans for achieving first choice career goal should be determined according to five point specificity scale described below. After identifying first choice career goal, plans for achieving this goal should be identified and marked "plans" on the essay. If no plans occur in essay, then response to question #6 on second sheet of essay guide should be scored. Only the plans for the first choice career should be rated. Ignore any plans that clearly relate to second choice. These should appear as the answer to question #6 of "My Plans" and should be scored on the "My Plans" according to the same five point rating scale. Score assigned to plans for achieving first career choice should be recorded at top of essay.

5 Point Specificity Scale

1 --- NO MENTION: indicates little or no thought regarding plans for achieving career goal or mentions plans clearly inappropriate to his occupational objective, or appears not to understand question.

2 --- GENERAL: suggests only vague relationship between his junior high, high, post-high school, college plans and occupational objective.

3 --- SOMEWHAT SPECIFIC: one step in the plan is specifically and appropriately related to career goal. Even though additional steps may be given which are vague and not directly related to career goal, credit should be given for specific step. Even if information is not absolutely correct, student should get credit for any indication of specific thought.

4 --- SPECIFIC: two steps in the career plan are specifically and appropriately related to career plans.

5 --- HIGHLY SPECIFIC: three or more steps are specifically and appropriately related to career plans.

EXAMPLES OF PLANS FOR EACH LEVEL OF SPECIFICITY

1 --- NO MENTION: indicates little or no thought regarding plans for achieving career goal or mentions plans clearly inappropriate to his occupational objective, or appears not to understand question.

The following examples should be given a rating of (1):

Blank space after question #6 on essay guide, and no mention in essay.

or response such as:

I don't know.
I'm not sure.
I haven't decided.
I plan to continue with biology. (Goal: English teacher)

2 --- GENERAL: suggests only vague relationship between his junior high, high, post-high school, college plans and occupational objective.

The following examples should be given a rating of (2):

List of general courses not specifically related to career goal which most students are required to take.

or a response such as:

I should get better grades.
I should finish high school.
I should go to college.
I should find a job.

3 --- SOMEWHAT SPECIFIC: one step in the plan is specifically and appropriately related to career goal. Even though additional steps may be given which are vague and not directly related to career goal, credit should be given for specific step. Even if information is not absolutely correct, student should get credit for any indication of specific thought.

3 --- SOMEWHAT SPECIFIC: (Continued)

The following examples should be given a rating of (3):

I intend to read a lot about being an English teacher.
I will do more reading in science. (Goal: scientist)
I will go to an agricultural college. (Goal: veterinarian)
I would like to get a college degree.
An engineer has to go to college for 4 years.
I will get a part-time job at my father's advertising business. (Goal: secretary)
I will take a nurses course in college.
I will learn a lot of math. (Goal: engineer)
I will learn to read better. (Goal: journalist)
I will try to get on the high school football team. (Goal: athlete)

4 --- SPECIFIC: two steps in the career plan are specifically and appropriately related to career plans.

The following examples should be given a rating of (4):

I want to go to agricultural college; perhaps to the University of California at Davis. (Goal: veterinarian)
I will probably take homemaking many times during high school. I will go to college and get a degree in home economics. (Goal: sewing teacher)
I will get a part-time job working at my father's advertising business and I will continue taking typing at high school. (Goal: secretary)
I will go to a good college like MIT for 4 or 5 years. (Goal: electronics engineer)
Get on a high school sports team. Major in P.E. in college. (Goal: athlete)

5 --- HIGHLY SPECIFIC: three or more steps are specifically and appropriately related to career plans.

The following examples should be given a rating of (5):

Right now, I'd like to get a yearling colt to train. I want to go to an agricultural college; perhaps the University of California at Davis.

5 --- HIGHLY SPECIFIC: (Continued)

I will probably take homemaking many times during high school. I will then go to college and get a degree in home economics. I will then begin training to be a teacher. (Goal: sewing teacher)

I will get a part-time job working at my father's advertising business. I will continue taking typing at high school. I will go to secretarial school. (Goal: secretary)

I will take as much math as I can in high school, go to a good college like MIT for 4 or 5 years. (Goal: electronics engineer)

Get on a high school sports team. Try to get a scholarship. Major in P.E. in college. (Goal: pro-athlete)

III. PROCEDURES FOR CATEGORIZING VERBALIZED SELF-PERCEPTIONS

Essays are to be scored for the number of statements and the category of each statement made by student about himself. The following should be used as a guide for scoring of essays:

1. Only the essay itself should be scored. However, if student fails to write essay but answers questions on mimeographed essay guide, the essay guide should be scored.

2. A credit of one point should be given for each complete perception referring to self. This complete statement should be bracketed and the number of the appropriate category written above the statement. Bracketed statement should be tallied by category with total number of perceptions indicated at top of essay.

3. No credit should be given to career goal(s) mentioned in essay or to plans for achieving goal(s). These should be given credit according to the two five-point scales designed to measure specificity of career goal(s) and plans.

   Occasionally student's career goal and present interest are the same. Credit should be given for the present interest but not for the career goal. Look for clues to indicate which it is.

   For example: If the student begins his essay with, "I am interested in electronics," assume this is a career choice answering the first question of the guide.

   However, if student says, "I am interested in both electronics and art at school," assume he is talking of present interest.

4. Any statement that cannot be understood, do not score.

5. Score explicit statements as far as possible, rather than inferences drawn from what is given. If statement does not fit any category, do not score.

6. While past, present, and future tenses can be used as an indication of appropriate category, it should be noted that students frequently use these tenses incorrectly. If a sentence makes no sense because the student has used the wrong tense, score as if the student had used the proper tense. However, if sentence does make sense, do not change tense.

7. Do not give credit more than once for a single perception. (Frequently students repeat the same idea using slightly different words. Credit should be given only once. All statements assigned to same category should be checked for similarity.)

8. Frequently, student will use more than one sentence to describe a complete perception, particularly when describing an important earlier experience or the influence of parents, friends, siblings, etc. Give credit of one point for such a case.

   For example, the following should be given one point under category (10) SIBLINGS:

   > "My brother is a carpenter. He has shown me how to use his tools."

9. Frequently, student will have more than one perception within a single sentence, particularly when listing interests. Give credit for each separate perception, or in the case of interests, each separate interest. However, be careful not to give more than one credit to the following kind of sentence:

   > "I think I will be a good doctor because I am interested in helping people."

   Credit should be given for "interest in helping people." However, when no explanatory clause follows "I think I will be a good doctor," then this statement should be given credit.

CATEGORIES FOR VERBALIZED SELF-PERCEPTIONS

A. Personal Characteristics and Resources

(1) INTERESTS: (past or present hobbies, interests, recreation)

(2) INTELLIGENCE: (intelligence, aptitude, knowledge, skills)

(3) PHYSICAL CHARACTERISTICS: (physical characteristics, ability, appearance)

(4) PERSONALITY TRAITS: (personality traits, temperament, social aptitude)

(5) DEPENDENCE/INDEPENDENCE: (indication of acceptance or avoidance of responsibility and decision making, desire to be own boss, to be free, to express self creatively or freely, to be challenged)

(6) PERSONAL BELIEFS: (personal beliefs, religious convictions, commitments to causes)

B. Past Influences on Development

(7) PARENTS: (parents, step-parents, or general reference to family)

(8) SCHOOL PERSONNEL: (principal, teachers, counselors, nurse, custodian)

(9) OTHER ADULTS: (relatives, neighbors, friends of parents, parents of friends)

(10) SIBLINGS: (brothers, sisters, sisters and brothers-in-law)

(11) PEERS: (friends or general reference to people)

(12) BROADER SOCIETY: (organizational affiliations, social trends, technological developments)

(13) MASS MEDIA: (books, movies, TV, current events)

(14) PLAY: (participation in or observation of sports, reference to games, toys)

(15) JOBS / COURSES: (skill development or experience through jobs, courses, lessons)

(16) MEANINGFUL FIRST-HAND EXPERIENCE: (indication of direct personal involvement in highly inspiring, traumatic, interest-captivating situation)

C. Opportunities and Resources for Future Development

(17) LACK OF SELF-KNOWLEDGE: (explicit statement indicating lack of knowledge about self, lack of experience, or unpreparedness for career exploration)

(18) LIKELIHOOD OF PURSUIT OF CAREER GOAL: (explicit statement of likelihood or unlikelihood of pursuit of career goal(s), general statement regarding appropriateness of career to self)

(19) DESIRES FOR FUTURE: (intentions and desires for future related to self and career)

(20) RESOURCES AND CIRCUMSTANCES ENABLING FUTURE TRAINING: (money, scholarships, jobs, proximity to school)

(21) CAREER OPPORTUNITIES: (career opportunities and inducements offered by broader society; observations of society and technology)

(22) JOB OR JOB TRAINING REQUIREMENTS: (personality, physical, educational requirements)

(23) MILITARY OBLIGATION: (reference to military only if military service is seen as obligation)

(24) SEX ROLE EXPECTANCIES AND STEREOTYPES: (reference to marriage, male and female responsibilities in family)

EXAMPLES OF STATEMENTS BELONGING IN EACH CATEGORY

A. Personal Characteristics and Resources

(1) INTERESTS: (past or present hobbies, interests, recreation)

I love animals.
I like people.
I like working with children.
I like to swim.
I like football the best of any sport.
I'm most interested in birds.
Electricity is fun.
My favorite subject is math.
I like taking care of old people. (or sick people, or children)
I have always enjoyed school.
I used to like drawing.
I like to make things with my hands.
I love clothes.
I like to read about medicine.
Chemistry is interesting.
I have never enjoyed working indoors.

Note: INTENTIONS AND DESIRES FOR THE FUTURE should not be included in this category, but in category (19). For example:

I would like building houses.
I hope to travel to Europe some day.
I would like a job where I can help people.

(2) INTELLIGENCE: (intelligence, aptitude, knowledge, skills)

I'm mechanically inclined.
I sew well without training.
I know a lot about art.
I have been doing o.k. in math.
I do average in science.
Spanish is easy.
I have a hard time with my school subjects.

(2) INTELLIGENCE: (Continued)

Animals like me.
I'm good with animals.
I know sports.
I'm not dumb.
I am doing A and B work.
I already know how to train a horse.
I'm a good cook.

Note: Physical ability and social aptitude should not be included in this category. Statements about social aptitude should be included under PERSONALITY TRAITS. For example:

I get along with people.
I make friends easily.
People like me.
I have a good personality.

Statements about physcial ability should be included under PHYSICAL CHARACTERISTICS. For example:

I'm good with my hands.
I'm a fast runner.
I'm good in football.
I have a good figure.

(3) PHYSICAL CHARACTERISTICS: (physical characteristics, ability, appearance)

I'm good in sports.
I'm good with my hands.
I'm a fast runner.
I'm good in football.
I'm a good athlete.
I have a good figure.
I am strong.
I'm tall and weigh 95 lbs.
I am not very strong.
I don't think I'll be good enough for the pro's. (professional football)
I would be a little small, but I can catch and run good. I hope to get bigger.

(4) PERSONALITY TRAITS: (personality traits, temperament, social aptitude)

I get along with people.
I don't make friends easily.
People don't like me.
I have a good personality.
I am calm. (or pleasant, patient, shy, nice, neat, careful, happy, lazy, thoughtful, kind, considerate, sympathetic, quiet, funny, talkative)
I get bored easily.
I enjoy action.
I feel good.
I don't like sitting down a lot.
I'm not gentle generally, but when I am around animals, it all changes.
I'm not afraid of animals.
I'm hard working.
I like to go places and do things, instead of sitting down and reading a book.
I have fun in school and out of school.

(5) DEPENDENCE/INDEPENDENCE: (indication of acceptance or avoidance of responsibility and decision making, desire to be own boss, to be free, to express self creatively or freely, to be challenged)

I'm a good follower.
I like somebody else to make the decisions.
I plan to stay in the Air Force as long as I want.
People know I have much responsibility for their children.
My mother didn't have to do anything, I did it all by myself.
I have always wanted to be free, have my own life, be my own boss.
Bottle collecting gave me a chance to find out things for myself.
If a friend is having a problem, I will help, if a teacher gives me a math problem, I will answer it.
I learned about mini-bikes by myself.
I would like to be in the Air Force because [of responsibility for safety of plane and people.]
I would like to be an artist so I can [create things never created before.]

Note: Score only part of sentence in brackets. Career goal itself should not be scored.

(6) PERSONAL BELIEFS: (personal beliefs, religious convictions, commitments to causes)

I don't hang around with boys who smoke or drink. I hate it. I think kids are trying to show off smoking and drinking. I think they're crazy.
I feel kindergarten is the turning point in your school years, you start to like it then or never.
Art is a creative subject.
World peace, love, and freedom is my bag.
I go to church every Sunday.
I think we should get out of Vietnam.
I think kids should want to work for the U.S.A.

B. Past Influences on Development

(7) PARENTS: (parents, step-parents, or general reference to family)

My dad was in the Air Force. He tells me a lot of things about flying.
My father died of cancer.
My father helped build the Golden Gate Bridge.
My father (mother, family) has influenced me.
I go hunting and fishing with my father.
My mother was an electrician once. She says it's not so hard; it just takes a little brains.
I know something about being a doctor from my step-father.
My mom loves pets and shares my interest with me.
My father shows me how to make things.
I'm going to be a grocer and follow in my dad's footsteps.
My father is interested in sports. He likes to see me active in sports.
My whole family has something to do with art.
I am going to work with my father. My father said to me be a bricklayer and help me with my work.
My family lots of times eats out.
I've heard a lot about it from my mother who is a sales lady.

(8) SCHOOL PERSONNEL: (principal, teachers, counselors, nurse, custodian, etc.)

I've known and talked to first, second, and kindergarten teachers.
I liked a teacher very much, and then I thought I'd like to teach.
My teacher really got me interested in painting.
I had an English teacher who gave us a lot of work to do in composition so I got to like writing.
One of my teachers told me that I would make a good teacher.
Our teacher was mean and shot me with a fire extinguisher.
The principal of my elementary school was very nice.

(9) OTHER ADULTS: (relatives, neighbors, friends of parents, parents of friends)

I go to my grandparents' farm.
I have a friend who is a policeman.
I picked up poetry from an uncle who does poetry.
I enjoyed the stewardesses on the planes.
My uncle is one (an engineer). He would get me a job.
I learned about planes from a man down the street.
I have watched the waitress.
A friend of my dad flies.
I would love to be a forest ranger because of the things I see them do when I go camping.
My aunt is a nurse. She always puts in a good word for nursing.

(10) SIBLINGS: (brothers, sisters, sisters-and brothers-in-law)

My sisters won awards for drawing.
My brother was a bus boy. He told me a little about what you have to do to keep a job as a waitress.
I want to be a teacher because my sister wants to be a teacher.
I have three younger brothers.
I picked up my knowledge about the Peace Corps from my brother.
My brother was a road maker.
I would like to be a pilot because my brother is one. Once in a while he writes us he is having a fine time.
My sister-in-law is a telephone operator.
My brothers say they want to be doctors.

(11) PEERS: (friends or general reference to people)

I was influenced by some friends.
Sometimes I see my friends build things. I get ideas from them.
Some of my friends want to be airline stewardesses.
My friends and I always talk about sports.
My friends say I'd be a good social worker.
I have some friends who are beauticians.
I have a friend who plays and he is good.
People say the dress I made is cute.
People say I would make a good doctor.

(12) BROADER SOCIETY: (organizational affiliations, social trends, technological developments)

I think the hippies have influenced me.
I play for the Palo Alto Knights.
When I became a boy scout it influenced me.
Now I'm in Youth League.
Watching the highway construction has influenced me.

(13) MASS MEDIA: (books, movies, TV, current events, etc.)

I have seen many television shows which have made me very interested in space--if you ever saw 'Star Trek' you'd know what I mean.
I saw a movie about the Ship Hope.
Every Sunday I watch football on TV.

(14) PLAY: (participation in or observation of sports, reference to games, toys, etc.)

I have been to a lot of football and baseball games.
I had to play the games the boys wanted to.
I have played baseball almost all my life.
I always did a lot of roller skating.
I've grown up with this environment (lots of sports); out of school my life is football, baseball, etc.
I have a wind tunnel and a thing that measures speed and direction of wind.

Note: The following do not belong in this category but to the category indicated at the right.

I watch football on television.	MASS MEDIA
I like to play (to go to) football games.	INTERESTS

(15) JOBS/COURSES: (skill development or experience through jobs, courses, lessons)

I sing in the church choir.
I take violin lessons.
This summer I followed Bell Telephone men around and watched them work. They saw I kept coming around so they gave me a job as a cable splicer.
I work at a Palo Alto drive-in.
I am a drummer with one band and a guitarist with another.
I've done babysitting in 7th and 8th grade.
I took a course called GEM on how to care for children.
I teach church nursery school.
I used to help them waitress.
I'm taking boys' glee club as a class and after school.
I take art every year.
I work for my father in his grocery store.
I help with odd jobs around the house.
I have worked with animals.
I have worked on a ranch before.

(16) MEANINGFUL FIRST-HAND EXPERIENCE: (indication of direct personal involvement in highly inspiring, traumatic, interest-captivating situation)

I took apart a watch and put it back together.
Ever since I was little I would sit down with a piece of paper and write stories.
Once I designed and made a dress for myself.
When I was young I climbed to the top of our pepper tree.
My friend has a back yard and for a long time we've had different kinds of fish in there.
I was five when I got my first electronic package for Christmas.
Until 2 or 3 years ago we lived in the country around horses.
One time I had 30 Kennedy pieces because I thought they would be valuable.
When I was 10 I got in a jet cockpit. Since then I want to be a pilot.
I have helped two teachers with their classes. I taught them games, helped them with their work, played with them.
I like looking down at people and moving fast through the air, being pushed against the back of the seat at takeoff.
I have seen many old buildings in Europe.
I've been playing drums for three years.
I have had several opportunities to help animals when sick.

C. Opportunities and Resources for Future Development

(17) LACK OF SELF-KNOWLEDGE: (explicit statement indicating lack of knowledge about self, lack of experience, or unpreparedness for career exploration)

You're asking me all these questions when I'm not ready for them. When I'm 17 alright.
I haven't really thought of a career because you don't have to until older.
I don't know what kind of education would be needed to work in a restaurant.
I don't know what I want to be in the future.
This career doesn't have anything to do with the kind of person I am because it's just an interest.
I don't have any career interests now--in the future I might like to think about electronics.
I don't know what subjects electricity involves.
I don't know why I am the way I am.
I haven't had any experience as a model.

(18) LIKELIHOOD OF PURSUIT OF CAREER GOAL: (explicit statement of likelihood or unlikelihood of pursuit of career goal(s); general statement regarding appropriateness of career to self)

That's all I ever wanted to be.
I've always dreamed of being a pilot.
Most likely I will pursue that career.
I would like to be a pilot the best.
I really think I'd like to be one.
This career interests me a lot.
This is a very realistic choice.
This career fits me.
I don't even know if I'll be one.
I think I would be successful.

Note: The following do not belong in this category but to the category indicated at the right:

I think I'll do well [because I'm good at it.]	INTELLIGENCE
I think I could be a good doctor [because I like people.]	INTERESTS
I think it is good for me, [because I've taken a lot of art in school.]	JOBS/ COURSES

(19) DESIRES FOR FUTURE: (intentions and desires for future related to self and career goal)

I would like to fly a plane.
I intend to learn flying.
I would enjoy building houses.
I want to explore ancient ruins.
I will study very hard.
I want a job that is different.
It would be fun to be a skin diver.
I'd like something not boring.
I've always dreamed of having a home at the beach.
I hope to be able to travel in my job.
This seems to be interesting work.
I want a job that pays well.
I want a job where I can help people.

Note: Statement of fact about career goal belongs in category (21) CAREER OPPORTUNITIES. For example:

I want to be a doctor [because doctors make more money than any other profession.]

Engineers can always find a job.

(20) RESOURCES AND CIRCUMSTANCES ENABLING FUTURE TRAINING: (money, scholarships, jobs, proximity to school)

There's a junior college nearby.
I'll have to get a job so I can help with the expenses.
If I had some money, I could go to modeling school.

(21) CAREER OPPORTUNITIES: (career opportunities and inducements offered by broader society, observations of society and technology)

There is a big demand for technicians and engineers.
Working for Bell is my choice because there are opportunities for me.
Some orthodontists get a lot of money.
If you are a broker you get 1/2 the money the real estate salesman gets when he sells a house.
The ponies from the island are gentle enough to feed by hand.
Electricity can do a lot of things.
There are sea laboratories where scientists live underwater and study fish and plant life. They say that some day our food may come from the ocean.

*(22) JOB OR JOB TRAINING REQUIREMENTS: (personality, physical, educational requirements)

To be successful you have to be *neat* and *careful.* (2)
I think electricity might include math.
Sciences is 1/2 of being a nurse.
To be an artist you must be a good *painter* and *imaginative.* (2)
You must think hard as a bricklayer.
Liking clothes is a good start for being a model.
I should be good in *math, history, science.* (3)
A person who is a nurse should be *sympathetic, have feelings for others, desire to help.* (3)
I feel that *math, English, history* will help me in the future. (3)
For a secretary you'd have to go into *typing* and *shorthand.* (2)
Interior decorator would have to go to college in Home Ec.
When you are a doctor you must be polite.
A person who would tackle rockets should be ready for anything.
To be an airline stewardess you have to be a certain height or weight.
It would take a gentle person who loved animals.

(23) MILITARY OBLIGATION: (reference to military *only* if military service is seen as obligation)

I'll have to go to Vietnam.
I'll have to enlist in the Army or the Air Force.

(24) SEX ROLE EXPECTANCIES AND STEREOTYPES: (reference to marriage, male and female responsibilities in family, etc.)

I will break into the man's world of business.
Boys have to get a job so they can support a family.
I want to get married.

*Those sentences in category (22) which have words underlined should be given the score at the end of the sentence in parentheses. All other examples given in the above categories should receive a score of one.

APPENDIX F: RATER RELIABILITY TABLES

Pre-and post-test

Pre-test

RATER RELIABILITY FOR QUESTION #4 ON ESSAY GUIDE: FIRST CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly, 2 from each school.

ID No.	Rater #1	Rater #2	ID No.	Rater #1	Rater #2
027	4	5*	075	3	3
028	3	3	076	3	3
030	4	4	078	4	5*
032	3	3	112	2	2
034	4	4	113	4	4
036	3	3	114	4	4
037	4	4	115	3	3
039	1	1	116	3	3
040	3	3	117	4	4
042	5	4*	118	3	3
043	3	3	119	3	3
044	3	3	120	3	3
045	3	3	121	3	3
046	2	2	122	3	3
047	3	3	133	4	4
049	3	3	134	2	2
050	3	3	135	4	4
052	4	4	136	3	3
053	4	4	137	5	5
054	3	3	138	4	4
056	3	3	139	4	4
057	2	2	140	4	4
060	3	3	141	3	3
061	4	4	142	3	3
062	3	3	143	3	3
063	3	3	144	3	3
064	4	4	146	3	3
067	4	4	147	3	3
068	3	3	148	3	3
070	4	4	151	3	3
071	4	4	153	5	5
072	4	4			
073	3	3			
074	4	5*			

* Means Disagreement

Total Number Checked for Reliability = 65

Total Number of Agreements = 61

In no case was disagreement greater than one point.

Percent Agreement = 94%

Pre-test

RATER RELIABILITY FOR QUESTION #6 ON ESSAY GUIDE: PLANS FOR FIRST CHOICE CAREER GOAL

Classes used to check rater reliability selected at random from both schools.

ID No.	Rater #1	Rater #2
027	3	3
028	3	3
030	1	1
032	2	2
034	1	1
036	1	1
037	4	5*
039	1	1
040	1	1
042	1	1
043	1	1
044	1	1
045	5	4*
046	1	1
047	1	1
049	1	1
050	5	4*
052	4	4
053	3	3
112	1	1
113	2	3*
114	4	4
115	3	3
116	1	1
117	1	1
118	1	1
119	3	3
120	5	5
122	1	1

ID No.	Rater #2	Rater #3
023	2	2
025	5	5
135	3	3
136	3	3
139	4	4
140	5	5
142	1	1
143	1	1
144	2	2
145	1	1
150	5	5
154	3	3
155	1	1
156	1	1
177	4	4
180	3	3
181	5	4*
186	1	1
187	4	3*
188	3	3
189	5	5
191	2	2
192	4	3*
194	5	5
196	3	3
198	1	1

* Means Disagreement

Total Number Checked for Reliability ---------------------------- 55
Total Number of Agreements -- 48
Percent Agreement --- 87%

Total Number Checked by Raters #1 & 2 --------------- 29
Total Number of Agreements ------------------------- 25
Percent Agreement ---------------------------------- 86%

Total Number Checked by Raters #2 & 3 -------------- 26
Total Number of Agreements ------------------------- 23
Percent Agreement ---------------------------------- 88%

Mean Percent Agreement of Three Raters ---------------------------- 87%

Pre-test

RATER RELIABILITY FOR CONTENT ANALYSIS OF ESSAYS

Essays used to check rater reliability were selected randomly, twelve from each of the three classes representing both schools; one seventh grade, one eighth grade, one ninth grade.

ID No.	Number of Statements Scored by Rater #1	Number of Statements Scored by Rater #2	Total Number of Statements Scored	Disagreements on Number of Scorable Statements	Disagreements on Correct Category
7th Grade					
002	9	9	9	0	0
008	7	7	7	0	0
011	10	10	10	0	0
012	7	6	7	1	1
018	9	9	9	0	1
019	9	8	9	1	1
020	4	5	5	1	0
021	8	6	8	2	0
022	4	5	5	1	0
023	11	10	12	0	3
025	17	17	19	4	2
026	6	6	6	0	2
8th Grade					
135	11	11	12	2	0
136	6	6	6	0	0
139	6	6	6	0	0
140	7	7	7	0	1
142	3	4	4	1	0
143	6	7	7	1	0
144	5	7	7	2	0
145	6	6	7	2	1
150	6	6	6	0	1
154	10	12	12	2	1
155	6	9	9	3	1
156	7	7	7	1	0

RATER RELIABILITY FOR CONTENT ANALYSIS OF ESSAYS (Continued)

ID No.	Number of Statements Scored by Rater #1	Number of Statements Scored by Rater #2	Total Number of Statements Scored	Disagreements on Number of Scorable Statements	Disagreements on Correct Category
9th Grade					
177	4	5	5	1	0
180	5	7	7	2	1
181	7	8	8	1	1
186	5	5	5	0	1
187	4	4	4	0	1
188	3	3	3	0	0
189	11	13	14	4	1
191	2	2	2	0	0
192	7	9	10	4	0
194	16	17	19	5	0
196	8	10	10	2	0
198	10	10	10	0	1
Totals			291	43	21

Total Number of Essays Scored = 36 (12 from each grade)

Total Number of Statements Scored ------------------------------ 291

Combined Number of Disagreements ------------------------------ 64

Total Number of Agreements ----------------------------------- 227

Percent Agreement --- 78%

Total Number of Scored for 7th Grade ---------------- 104
Total Number of Agreements for 7th Grade ---------- 84
Percent Agreement ------------------------------- 81%

Total Number Scored for 8th Grade ---------------- 90
Total Number of Agreements for 8th Grade --------- 71
Percent Agreement ------------------------------- 79%

Total Number Scored for 9th Grade ---------------- 97
Total Number of Agreements for 9th Grade --------- 72
Percent Agreement ------------------------------- 74%

Mean Percent Agreement for Three Classes ----------------------- 78%

Pre-test

RATER RELIABILITY FOR QUESTION #4 ON "MY PLANS": FACTORS INFLUENCING PURSUIT OF FIRST CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3
001	0	0
002	1	1
003	1	1
004	1	1
005	2	2
006	1	1
007	1	1
008	1	1
009	0	0
010	0	0
011	1	1
012	2	2
013	0	0
014	1	1
015	2	2
016	1	1
017	2	2
018	2	2
019	1	1
020	0	0
021	1	1
022	1	1
023	2	2
025	1	1
026	0	0
111	1	1
112	2	3*
113	2	2
114	1	1
116	0	0
117	0	0
118	1	1
119	0	0
120	1	1
121	1	1
122	1	1
123	3	3
124	1	1
125	1	1
126	1	1
127	0	0
128	0	0
129	0	0
130	0	0
131	0	0
132	1	1
177	1	1
178	1	1
179	0	0
180	1	1
181	3	3
182	0	0
183	1	1
184	2	1*
185	3	3
186	1	1
187	1	1
188	1	1
189	2	2
190	0	0
191	1	1
192	2	1*
193	1	1
194	1	1
195	1	1
196	1	1
197	1	2*
198	1	1
199	2	1*
200	1	1
201	2	2

* Means Disagreement

Total Number Checked for Reliability = 71

Total Number of Agreements = 66

In no case was disagreement greater than one point.

Percent Agreement = 93%

Pre-test

RATER RELIABILITY FOR QUESTION #5 ON "MY PLANS": SECOND CHOICE CAREER GOAL

Students used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3	ID No.	Rater #2	Rater #3
029	1	1	169	4	5*
031	4	4	170	4	4
033	1	1	173	4	4
035	3	3	175	3	3
038	3	2*	176	3	3
039	1	1	177	3	3
041	1	1	178	3	3
048	1	1	179	1	1
055	2	2	180	3	3
058	3	3	181	3	3
059	3	3	182	2	2
065	3	3	183	1	1
066	1	1	184	3	3
069	3	3	185	3	3
077	1	1	186	1	3*
079	3	3	187	4	4
080	1	1	188	3	3
083	3	3	189	4	4
085	3	3	190	3	3
086	3	3	191	3	3
087	3	3	192	4	4
088	4	4	193	3	3
159	3	3	194	1	1
160	3	3	195	3	4*
161	4	4	196	4	4
162	4	4	197	3	3
163	3	3	198	4	4
164	3	3	199	3	3
165	4	3*	200	4	4
166	3	4*	201	2	2
167	3	3			
168	4	4			

* Means Disagreement

Total Number Checked for Reliability = 62

Total Number of Agreements = 56

In 5 cases -- 1 point disagreement
   1 case -- 2 point disagreement

Percent Agreement = 90%

Pre-test

RATER RELIABILITY FOR QUESTION #6 ON "MY PLANS": PLANS FOR SECOND CHOICE CAREER GOAL

Students used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3
029	1	1
031	1	1
033	1	1
035	1	1
038	3	3
039	1	1
041	1	1
048	1	1
055	3	4*
058	3	3
059	2	2
065	2	2
066	1	1
069	2	2
077	1	1
079	1	1
080	1	1
083	1	1
085	3	3
086	2	2
087	1	1
088	3	2*
159	3	3
160	3	3
161	4	4
162	3	4*
163	2	2
164	3	3
165	1	1
166	4	4
167	2	2
168	2	2
169	5	5
170	3	3
173	3	3
175	2	3*
176	2	2
177	3	3
178	1	1
179	1	1
180	2	2
181	3	3
182	3	3
183	1	1
184	1	1
185	4	4
186	1	3*
187	3	4*
188	2	2
189	3	3
190	3	3
191	2	2
192	3	3
193	1	1
194	1	1
195	3	2*
196	3	3
197	3	3
198	1	2*
199	2	2
200	1	1
201	3	2*

* Means Disagreement

Total Number Checked for Reliability = 62

Total Number of Agreements = 53

In 8 cases -- 1 point disagreement
1 case -- 2 point disagreement

Percent Agreement = 85%

Post-test

RATER RELIABILITY FOR QUESTION #4 ON ESSAY GUIDE: FIRST CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3	ID No.	Rater #2	Rater #3
055	2	2	105	3	3
056	3	3	106	2	2
057	3	3	107	3	3
059	2	2	108	4	5*
060	3	3	109	3	3
061	4	4	110	3	3
062	3	3	111	3	3
063	4	4	133	2	2
065	3	2*	134	1	1
066	4	4	135	3	3
067	2	2	136	3	3
068	3	3	137	4	4
069	3	3	138	4	4
070	4	4	139	4	4
071	3	3	140	4	4
072	4	4	141	4	4
073	3	3	142	3	3
074	3	3	143	3	3
075	3	4*	144	3	3
076	3	3	145	5	5
077	3	3	146	3	3
078	3	3	147	3	3
096	2	2	148	3	3
097	4	4	149	3	3
098	3	3	151	4	4
099	1	1	152	5	5
100	3	3	153	4	4
101	1	1	154	3	3
102	3	3	155	2	2
103	3	3	156	3	3
104	2	2			

* Means Disagreement

Total Number Checked for Reliability = 61

Total Number of Agreements = 58

In no case was disagreement greater than one point.

Percent Agreement = 95%

Post-test

RATER RELIABILITY FOR QUESTION #6 ON ESSAY GUIDE: PLANS FOR FIRST CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3	ID No.	Rater #2	Rater #3
055	3	3	105	4	4
056	4	4	106	1	1
057	3	3	107	1	1
059	1	1	108	5	3*
060	3	3	109	1	1
061	3	3	110	3	3
062	2	2	111	3	3
063	3	3	133	1	1
065	1	1	134	1	1
066	4	4	135	5	5
067	3	3	136	1	1
068	1	1	137	1	1
069	4	4	138	1	1
070	1	1	139	4	4
071	4	4	140	4	4
072	4	3*	141	1	1
073	1	1	142	1	1
074	5	4*	143	5	5
075	3	2*	144	1	1
076	1	1	145	2	2
077	1	1	146	1	1
078	5	5	147	1	1
096	3	3	148	3	3
097	2	2	149	1	1
098	3	3	151	1	1
099	1	1	152	1	1
100	1	1	153	1	1
101	1	1	154	4	4
102	1	1	155	1	1
103	4	4	156	1	1
104	4	4			

* Means Disagreement

Total Number Checked for Reliability = 61

Total Number of Agreements = 57

In 3 cases -- 1 point disagreement
1 case -- 2 point disagreement

Percent Agreement = 93%

Post-test

RATER RELIABILITY FOR CONTENT ANALYSIS OF ESSAYS

Essays used to check rater reliability were selected randomly, twelve from each of the three classes representing both schools: one seventh grade, one eighth grade, one ninth grade.

ID No.	Number of Statements Scored by Rater #1	Number of Statements Scored by Rater #2	Total Number of Statements Scored	Disagreements on Number of Scorable Statements	Disagreements on Correct Category
7th Grade					
001	11	10	11	1	1
002	11	10	11	1	1
005	6	5	6	1	0
006	6	5	6	1	1
008	4	4	4	0	0
009	9	7	9	2	1
010	8	8	9	2	1
021	8	8	8	0	0
022	10	10	10	0	1
023	18	16	18	2	2
024	6	4	6	2	0
026	18	17	18	1	2
8th Grade					
157	4	4	4	0	1
158	7	7	8	2	0
160	6	6	6	0	0
162	9	8	9	1	1
164	14	12	14	2	0
167	7	6	6	1	0
168	6	8	9	3	0
169	8	8	8	0	0
170	10	8	10	2	0
173	9	8	9	1	0
175	10	6	10	4	1
176	8	8	9	2	0

RATER RELIABILITY FOR CONTENT ANALYSIS OF ESSAYS (Continued)

ID No.	Number of Statements Scored by Rater #1	Number of Statements Scored by Rater #2	Total Number of Statements Scored	Disagreements on Number of Scorable Statements	Disagreements on Correct Category
9th Grade					
177	6	6	6	0	0
178	9	9	9	0	0
179	5	4	5	1	0
180	7	7	7	0	2
181	4	4	4	0	0
182	13	11	13	2	0
183	4	2	4	2	0
195	15	14	15	1	0
196	11	10	11	1	1
197	12	12	14	4	1
198	7	7	7	0	0
199	15	14	15	1	3
Totals			328	43	20

Total Number of Essays Scored = 36 (12 from each grade)

Total Number of Statements Scored -------------------------------- 328
Combined Number of Disagreements -------------------------------- 63
Total Number of Agreements -- 265
Percent Agreement -- 81%

Total Number Scored for 7th Grade -------------------- 116
Total Number of Agreements for 7th Grade ------------- 93
Percent Agreement ------------------------------------ 80%

Total Number Scored for 8th Grade -------------------- 102
Total Number of Agreements for 8th Grade ------------- 81
Percent Agreement ------------------------------------ 79%

Total Number Scored for 9th Grade -------------------- 110
Total Number of Agreements for 9th Grade ------------- 91
Percent Agreement ------------------------------------ 83%

Mean Percent Agreement for Three Classes ------------------------ 81%

Post-test

RATER RELIABILITY FOR QUESTION #4 ON "MY PLANS": FACTORS INFLUENCING PURSUIT OF FIRST CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3	ID No.	Rater #2	Rater #3
001	2	2	041	1	1
002	3	2*	042	0	0
005	2	1*	043	2	2
006	3	3	045	6	6
008	2	2	046	0	0
009	3	3	047	1	1
010	1	1	050	4	4
012	1	1	051	0	0
013	0	0	052	3	3
014	0	0	053	2	2
015	1	1	055	1	1
016	0	0	057	1	1
018	0	0	059	0	0
019	0	0	060	1	1
020	0	0	062	4	4
021	2	2	063	1	1
022	1	1	065	1	1
023	3	3	066	3	3
024	3	2*	067	0	0
026	2	2	068	0	0
027	2	2	069	2	2
028	1	1	070	2	2
029	1	1	071	1	1
030	1	1	072	1	1
031	2	2	073	0	0
032	2	2	074	2	2
034	1	1	075	0	0
035	0	0	076	2	2
036	0	0	077	0	0
037	1	1	078	1	1
038	1	1			

* Means Disagreement

Total Number Checked for Reliability = 61

Total Number of Agreements = 58

In no case was disagreement greater than one point.

Percent Agreement = 95%

Post-test

RATER RELIABILITY FOR QUESTION #5 ON "MY PLANS": SECOND CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3
055	3	3
057	3	3
059	1	1
060	4	4
062	3	3
063	3	3
065	2	2
066	3	3
067	4	4
068	1	1
069	3	3
070	1	1
071	1	1
072	3	3
073	3	3
074	1	1
075	4	4
076	3	3
077	3	3
078	1	1
079	1	1
081	1	1
082	3	3
083	3	3
084	1	1
085	3	3
086	4	4
087	1	1
088	4	3*
089	3	3
090	3	3
091	2	2
092	3	3
094	2	2
112	2	2
113	2	2
114	1	1
116	3	3
117	2	3*
118	1	1
119	3	3
120	1	1
121	1	1
122	3	3
123	4	4
124	1	1
125	1	1
127	1	1
128	1	1
129	4	4
130	4	4
131	3	3
132	3	3

* Means Disagreement

Total Number Checked for Reliability = 53

Total Number of Agreements = 51

In no case was disagreement greater than one point.

Percent Agreement = 96%

Post-test

RATER RELIABILITY FOR QUESTION #6 ON "MY PLANS": PLANS FOR SECOND CHOICE CAREER GOAL

Classes used to check rater reliability were selected randomly from both schools.

ID No.	Rater #2	Rater #3
055	3	3
057	3	2*
059	1	1
060	2	2
062	4	2*
063	4	4
065	2	2
066	5	5
067	3	3
068	1	1
069	1	1
070	1	1
071	1	1
072	4	4
073	3	3
074	1	1
075	5	4*
076	5	5
077	1	1
078	1	1
079	1	1
081	1	1
082	4	4
083	2	2
084	1	1
085	2	2
086	2	2
087	1	1
088	3	3
089	5	5
090	3	3
091	3	3
092	3	3
094	4	4
112	4	4
113	3	3
114	1	1
116	1	1
117	1	1
118	1	1
119	3	3
120	1	1
121	1	1
122	3	3
123	5	5
124	1	1
125	1	1
127	1	1
128	1	1
129	4	4
130	4	4
131	3	3
132	3	4*

* Means Disagreement

Total Number Checked for Reliability = 53

Total Number of Agreements = 49

In 3 cases -- 1 point disagreement
1 case -- 2 point disagreement

Percent Agreement = 92%

OE 6000 (8-65)

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15. ABSTRACT *(250 words max.)*

Innovative vocational guidance curriculum materials which focus on the self, utilize research data as content (career attitude survey of 6th, 8th, 10th and 12th graders), and seeks to achieve affective objectives were tried over a short period of time with low academic students in English classes of two junior high schools. Purpose of the study was to determine the extent to which these materials might increase self-understanding and motivation to explore career interests. Measurements included semantic differential, content analysis of essays, written interviews, and behavioral checklists. Experimental 7th graders did have more positive evaluations of self than their controls; the number of self-perceptions verbalized in essays on career interests and specificity of career planning appeared also to have been influenced. Eighth graders reported seeking more occupational information from school and public libraries. These and other findings, e.g., sex differences in attitudes, suggest directions for curriculum emphasis and innovation. Teacher response to the materials and description of practical problems of research in school settings are blended with other results into specific recommendations for further application, development, and testing of the materials at both junior and senior high schools. Materials need application with students of diverse abilities and backgrounds.

16. RETRIEVAL TERMS *(Continue on reverse)*

Vocational content
Developmental perspective on self
Junior high school trial
Career exploration and motivation
Research data subject matter
Scientific approach
Self-perceptions
Content analysis of essays
Taxonomy, affective domain
Behavioral affective objectives
Related cognitive processes
Continuous classroom evaluation

17. IDENTIFIERS AIR-F-94

*Sherman, Vivian S. Planning and Development of Research Programs in Selected Areas of Vocational Education: Vol. III, Guidance Curriculum for Increased Self-understanding and Motivation for Career Planning. Final Report, Project No. 5-0047, Contract No. OE-5-85-106. Palo Alto, Calif.: American Institutes for Research, November 1966.